



Appendix A SHEM190401214301

1.6dB Bandwidth

Test Mode	Test	EBW[MHz]		Limit	Verdict
		Ant1	Ant2		
11B	2412	9.07	10.02	0.5	PASS
11B	2437	10.03	10.02	0.5	PASS
11B	2462	9.07	9.07	0.5	PASS
11G	2412	15.04	13.87	0.5	PASS
11G	2437	15.08	15.12	0.5	PASS
11G	2462	15.09	15.09	0.5	PASS
11N20SISO	2412	15.46	14.41	0.5	PASS
11N20SISO	2437	15.05	15.11	0.5	PASS
11N20SISO	2462	15.04	15.01	0.5	PASS
11N40SISO	2422	35.06	35.06	0.5	PASS
11N40SISO	2437	35.04	35.05	0.5	PASS
11N40SISO	2452	35.07	35.06	0.5	PASS

6dB Bandwidth_11B_2412_Ant1



6dB Bandwidth_11B_2437_Ant1



6dB Bandwidth_11B_2462_Ant1



6dB Bandwidth_11G_2412_Ant1



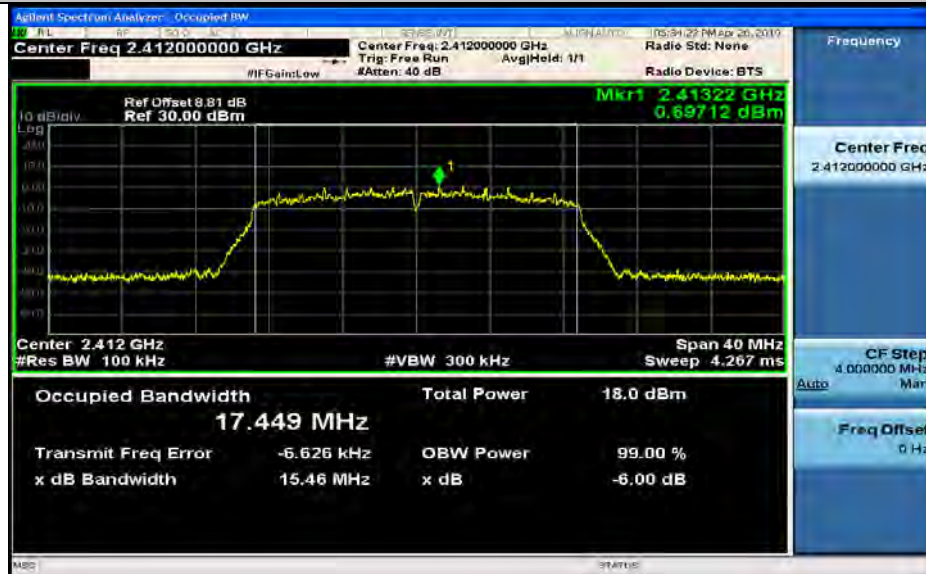
6dB Bandwidth_11G_2437_Ant1



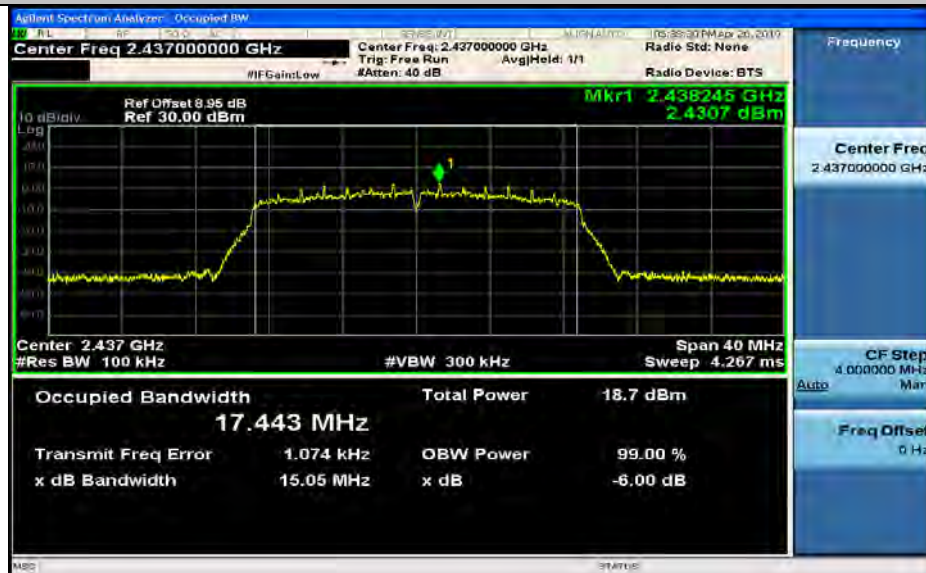
6dB Bandwidth_11G_2462_Ant1



6dB Bandwidth_11N20SISO_2412_Ant1



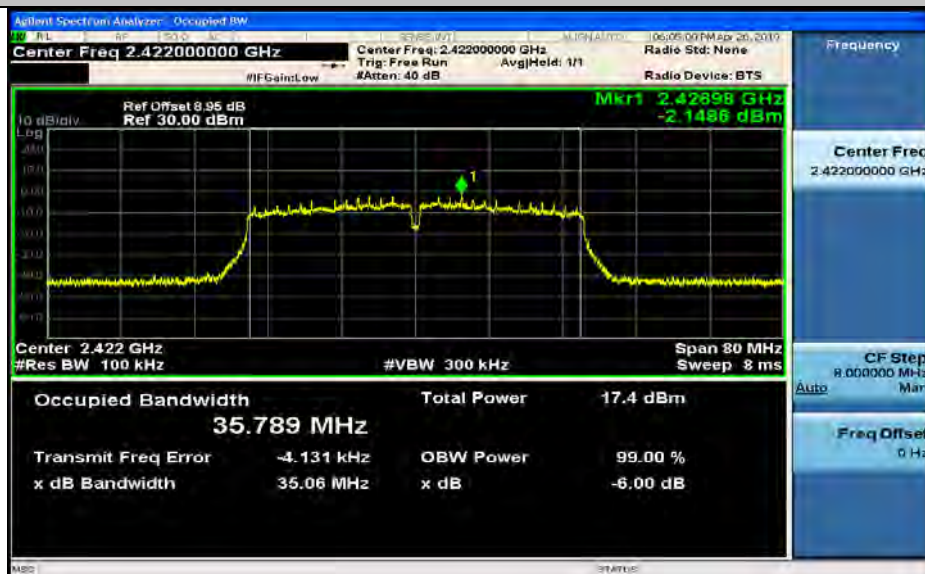
6dB Bandwidth_11N20SISO_2437_Ant1



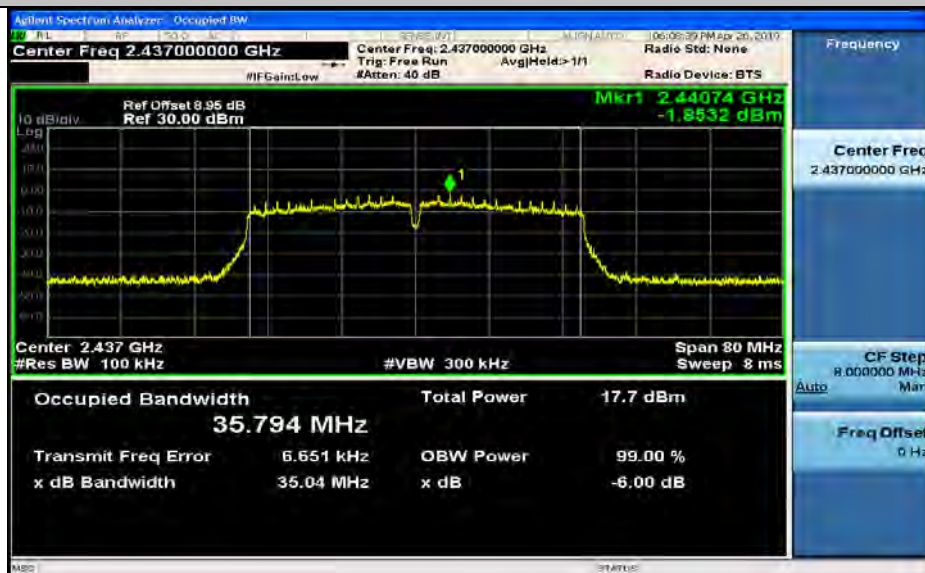
6dB Bandwidth_11N20SISO_2462_Ant1



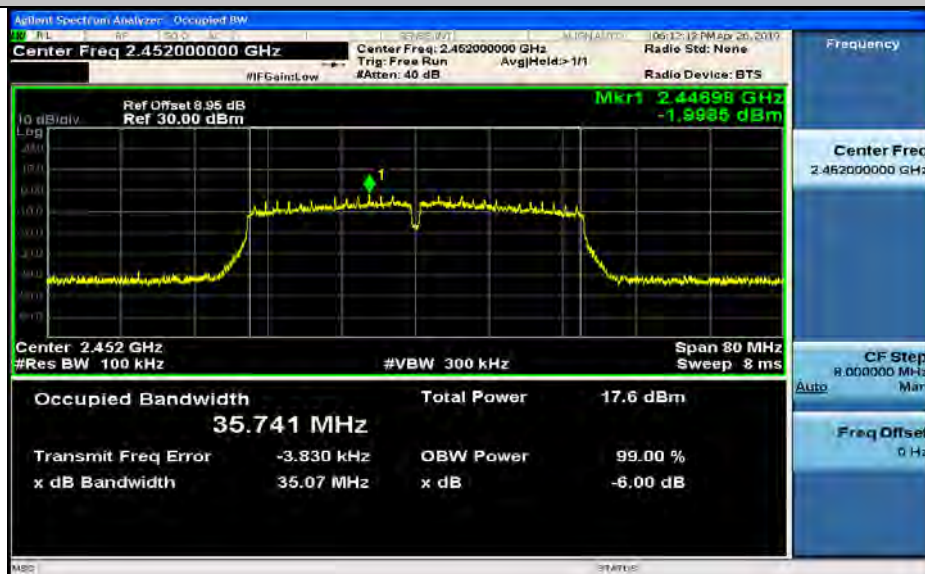
6dB Bandwidth_11N40SISO_2422_Ant1



6dB Bandwidth_11N40SISO_2437_Ant1



6dB Bandwidth_11N40SISO_2452_Ant1



6dB Bandwidth_11B_2412_Ant2



6dB Bandwidth_11B_2437_Ant2



6dB Bandwidth_11B_2462_Ant2



6dB Bandwidth_11G_2412_Ant2



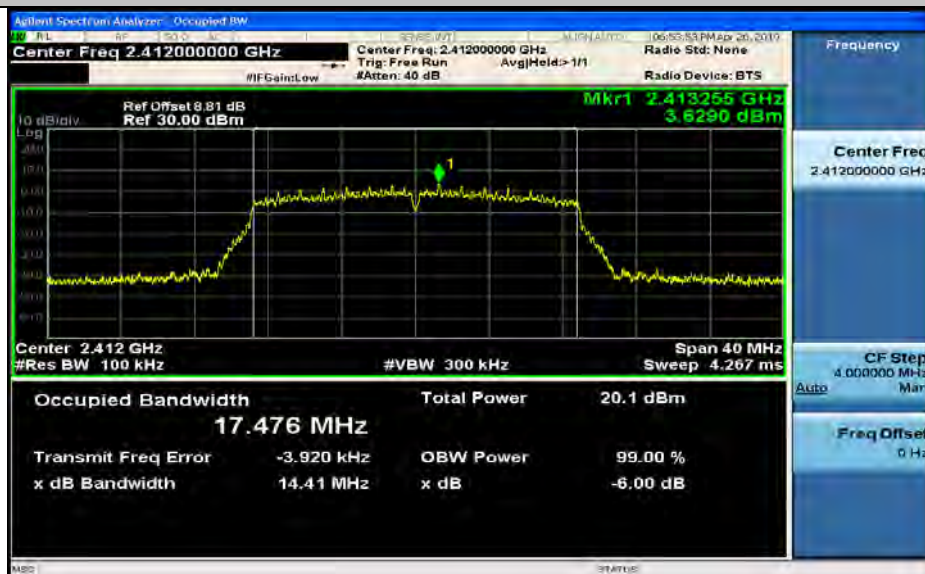
6dB Bandwidth_11G_2437_Ant2



6dB Bandwidth_11G_2462_Ant2



6dB Bandwidth_11N20SISO_2412_Ant2



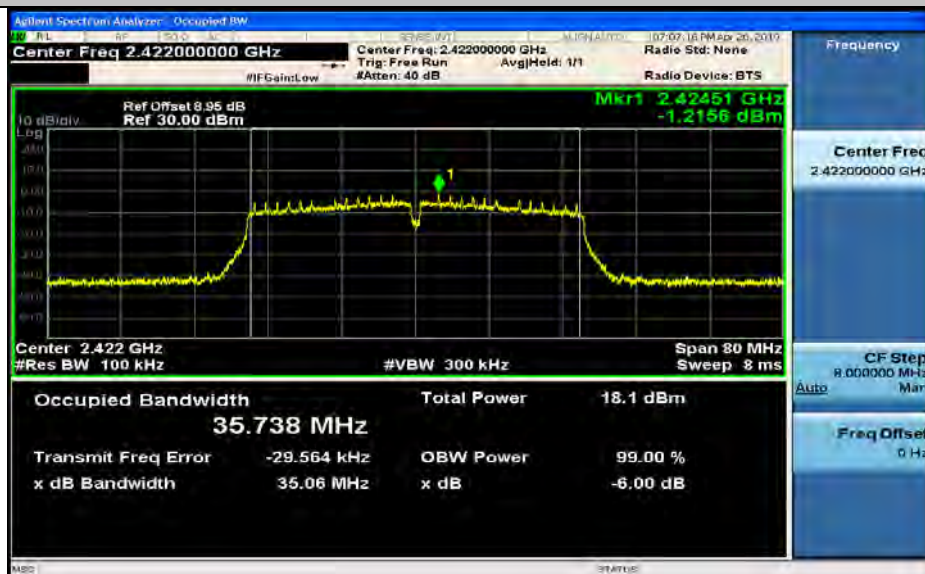
6dB Bandwidth_11N20SISO_2437_Ant2



6dB Bandwidth_11N20SISO_2462_Ant2



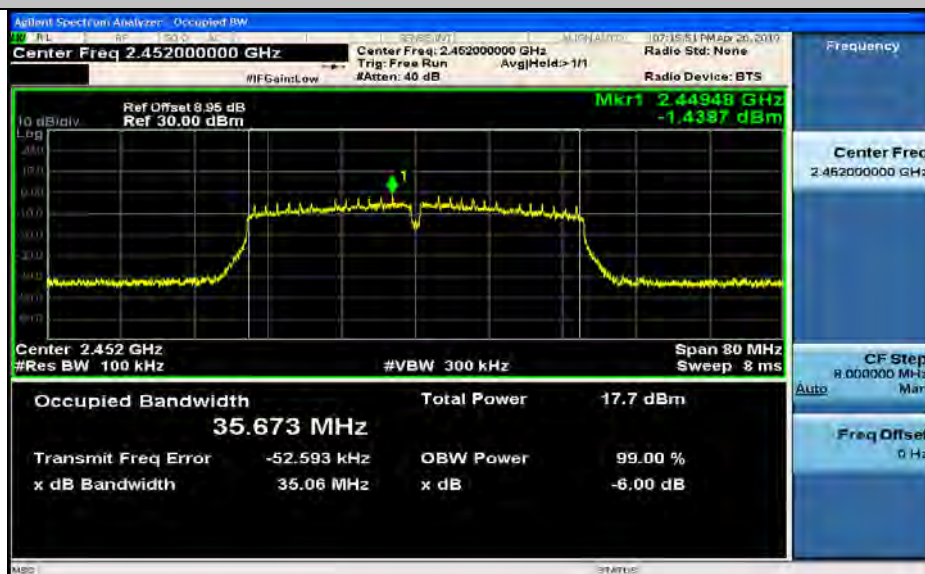
6dB Bandwidth_11N40SISO_2422_Ant2



6dB Bandwidth_11N40SISO_2437_Ant2



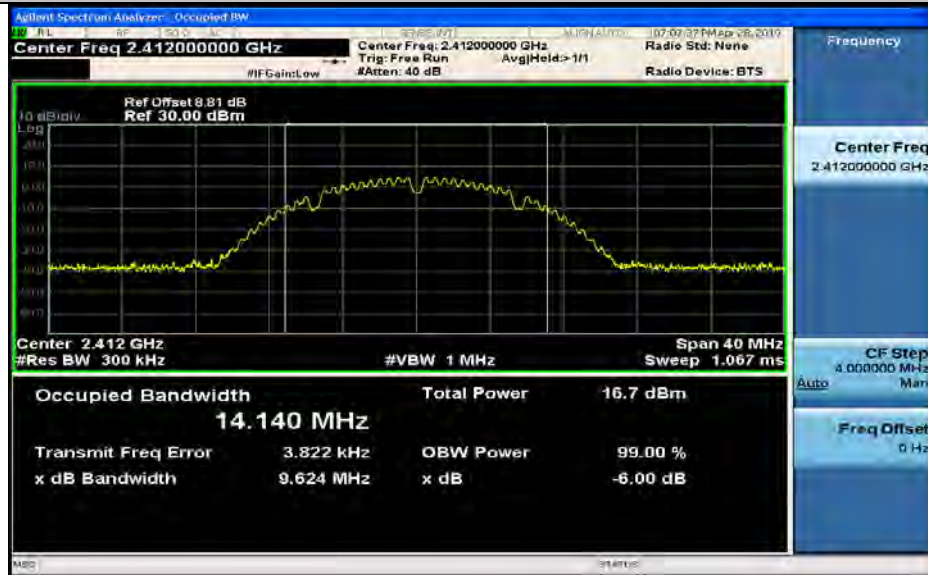
6dB Bandwidth_11N40SISO_2452_Ant2



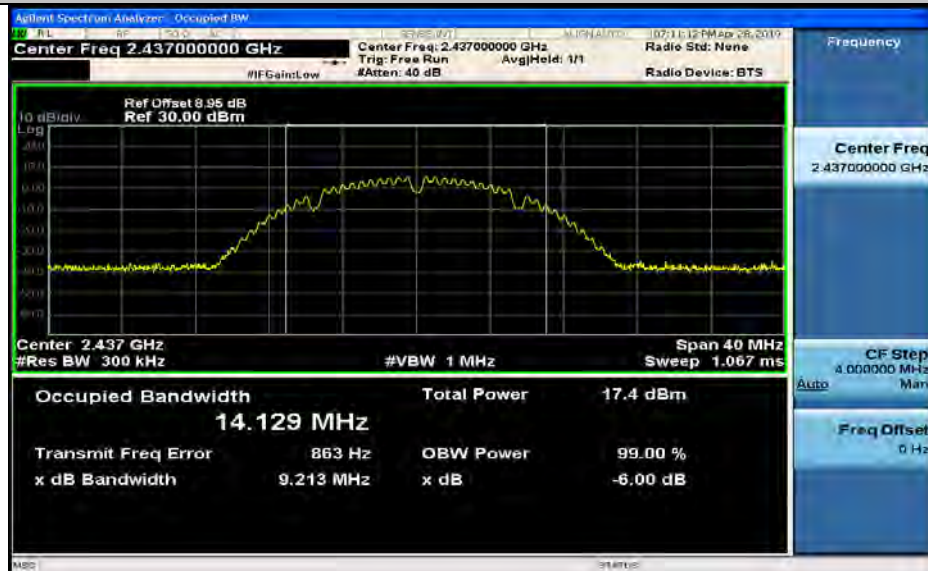
**2.Occupied Bandwidth**

Test Mode	Test Channel	OBW[MHz]		Limit[MHz]	Verdict
		Ant1	Ant2		
11B	2412	14.14	14.13	---	PASS
11B	2437	14.13	14.12	---	PASS
11B	2462	14.15	14.12	---	PASS
11G	2412	16.66	16.54	---	PASS
11G	2437	16.64	16.60	---	PASS
11G	2462	16.65	16.60	---	PASS
11N20SISO	2412	17.55	17.48	---	PASS
11N20SISO	2437	17.51	17.48	---	PASS
11N20SISO	2462	17.51	17.46	---	PASS
11N40SISO	2422	36.21	36.05	---	PASS
11N40SISO	2437	36.19	36.02	---	PASS
11N40SISO	2452	36.14	35.97	---	PASS

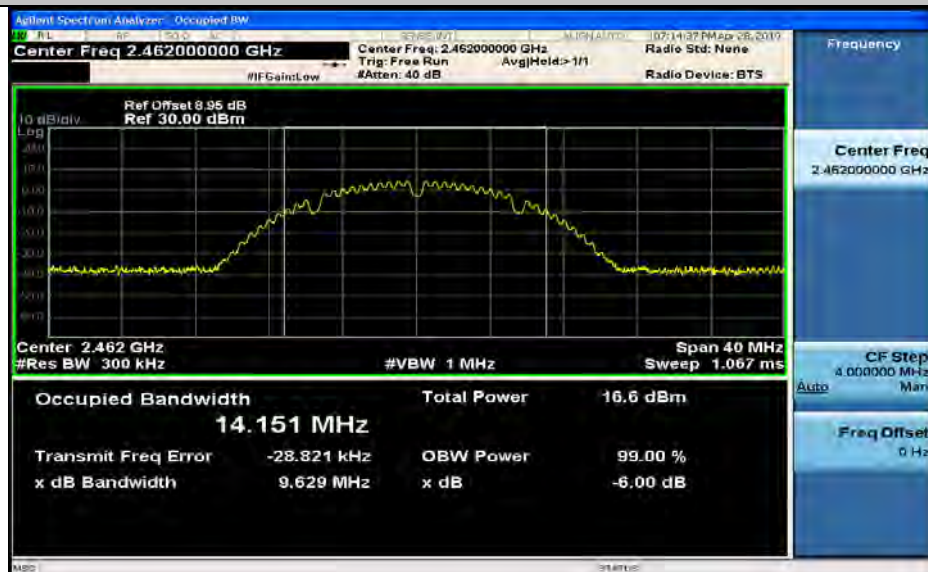
Occupied Bandwidth_11B_2412_Ant1



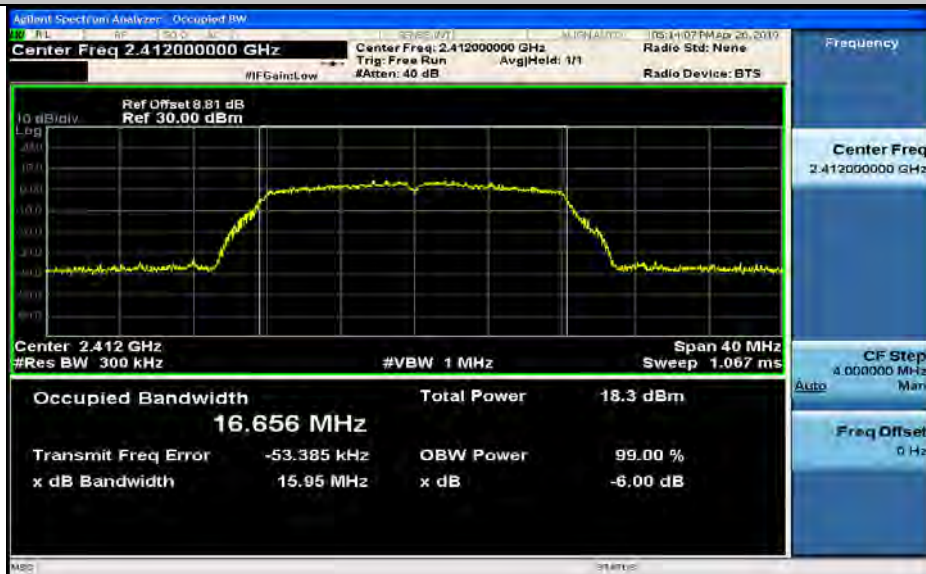
Occupied Bandwidth_11B_2437_Ant1



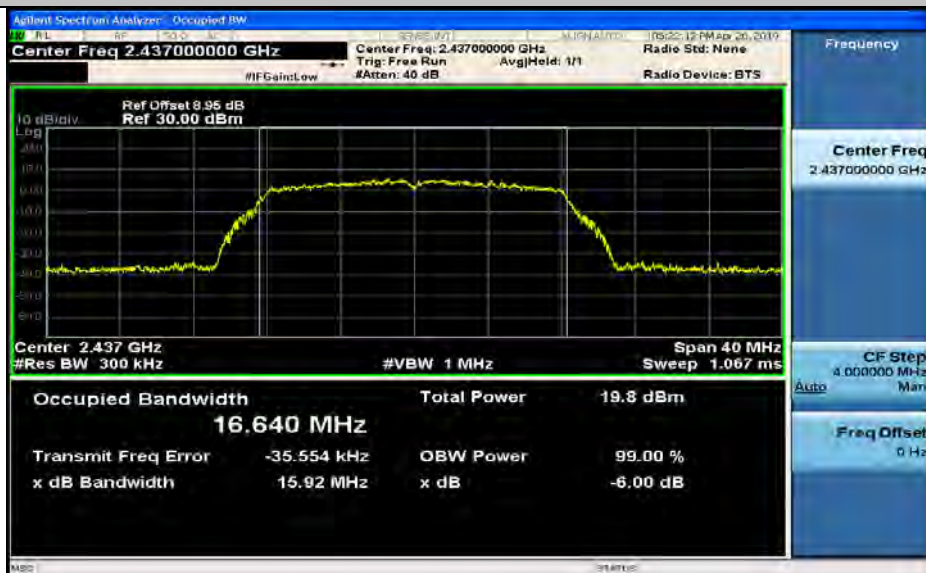
Occupied Bandwidth_11B_2462_Ant1



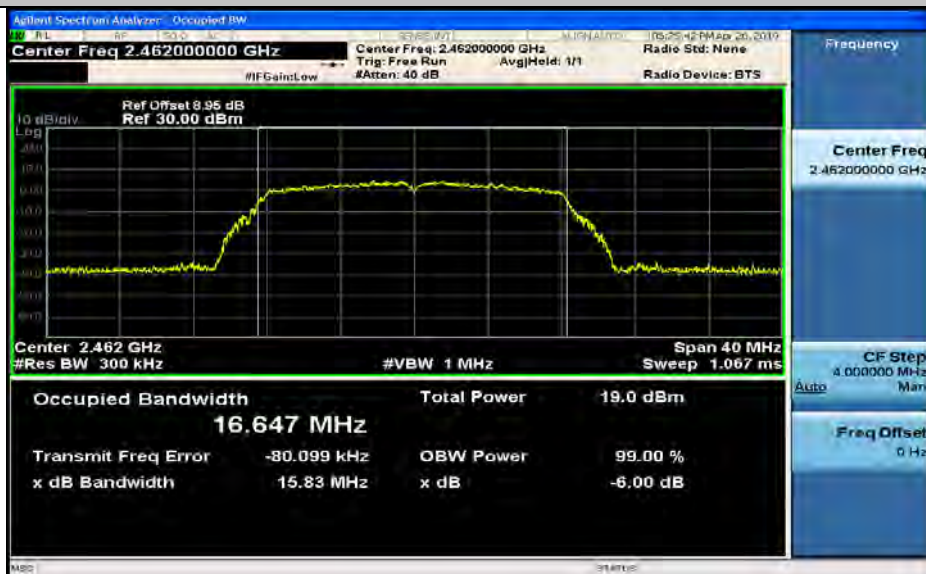
Occupied Bandwidth_11G_2412_Ant1



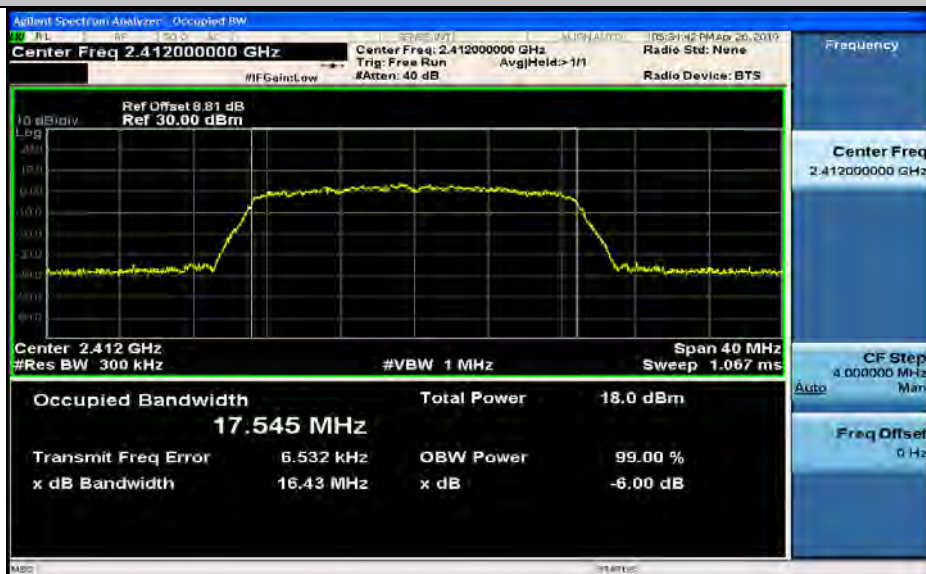
Occupied Bandwidth_11G_2437_Ant1



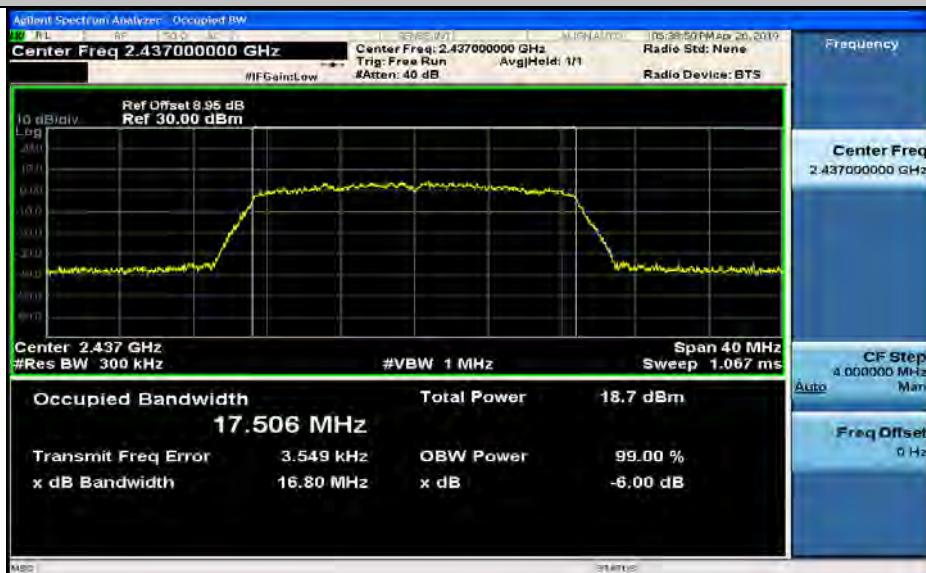
Occupied Bandwidth_11G_2462_Ant1



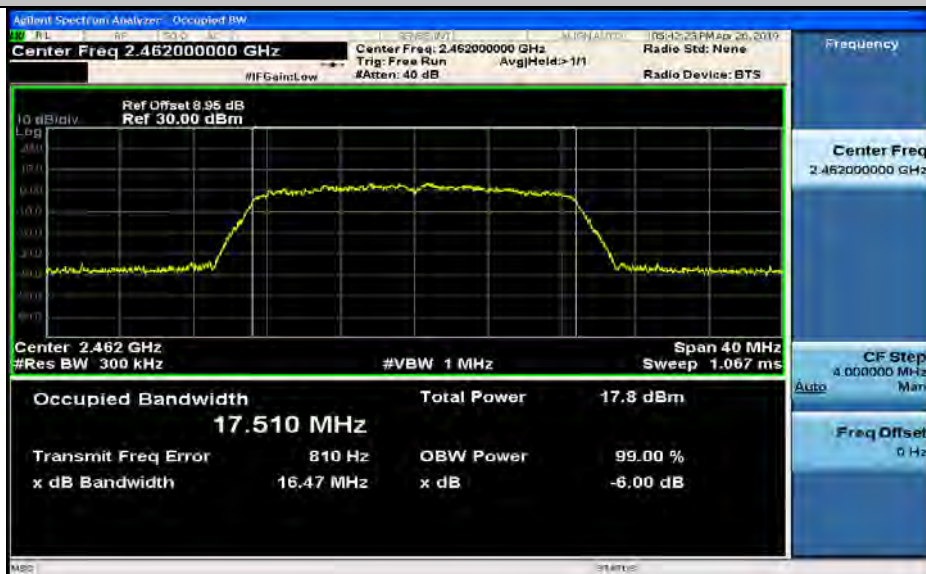
Occupied Bandwidth_11N20SISO_2412_Ant1



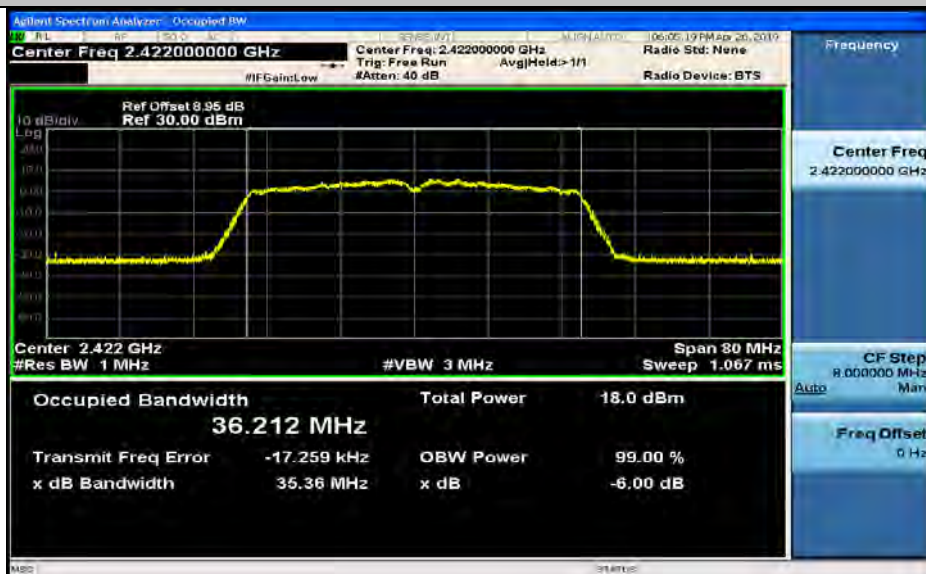
Occupied Bandwidth_11N20SISO_2437_Ant1



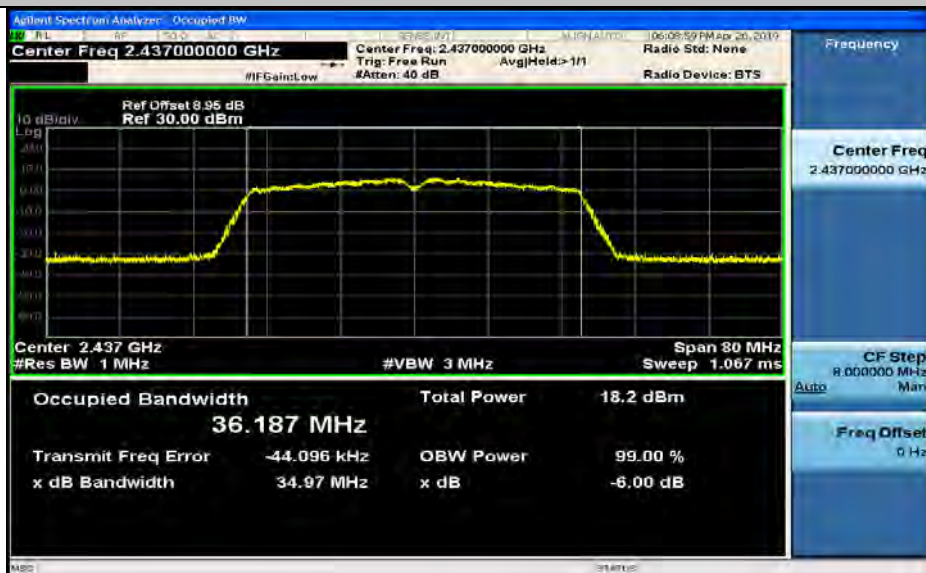
Occupied Bandwidth_11N20SISO_2462_Ant1



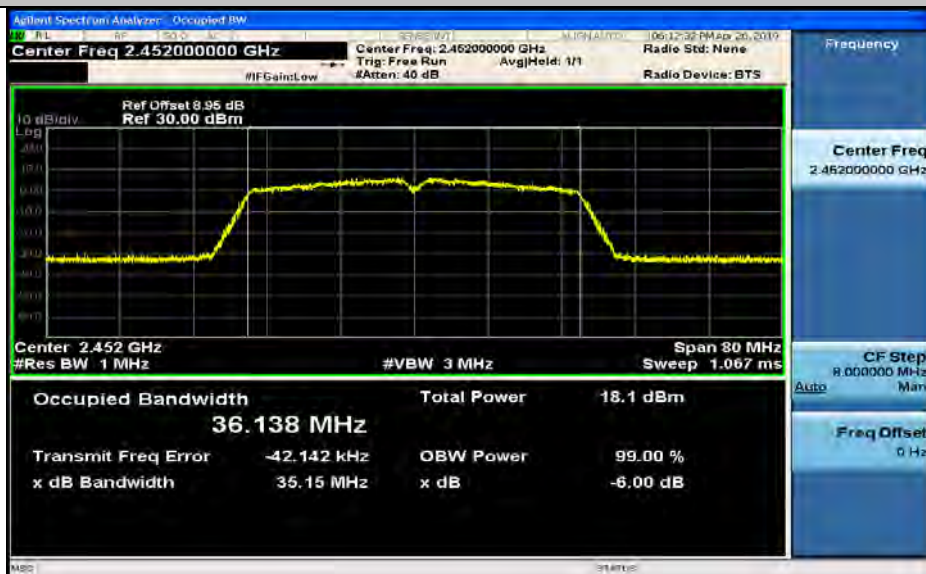
Occupied Bandwidth_11N40SISO_2422_Ant1



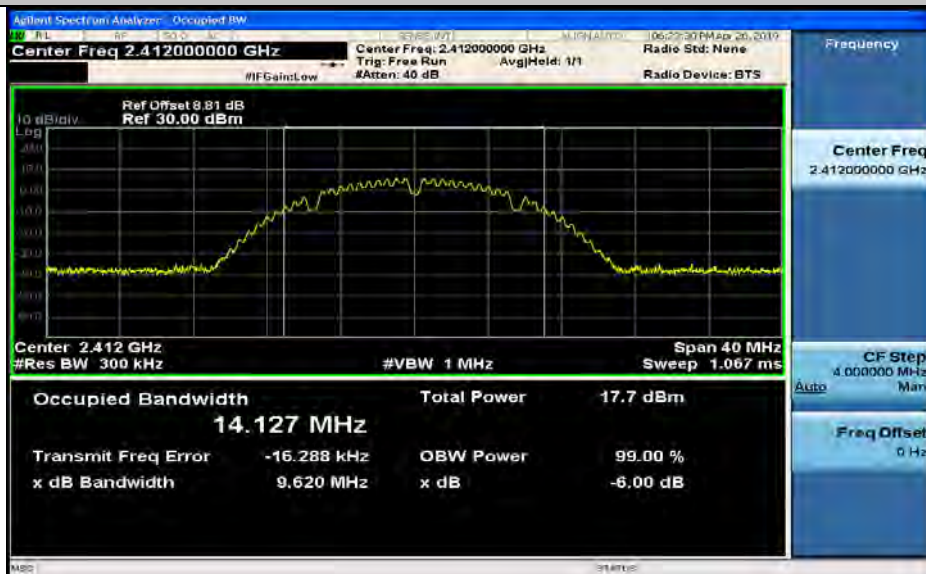
Occupied Bandwidth_11N40SISO_2437_Ant1



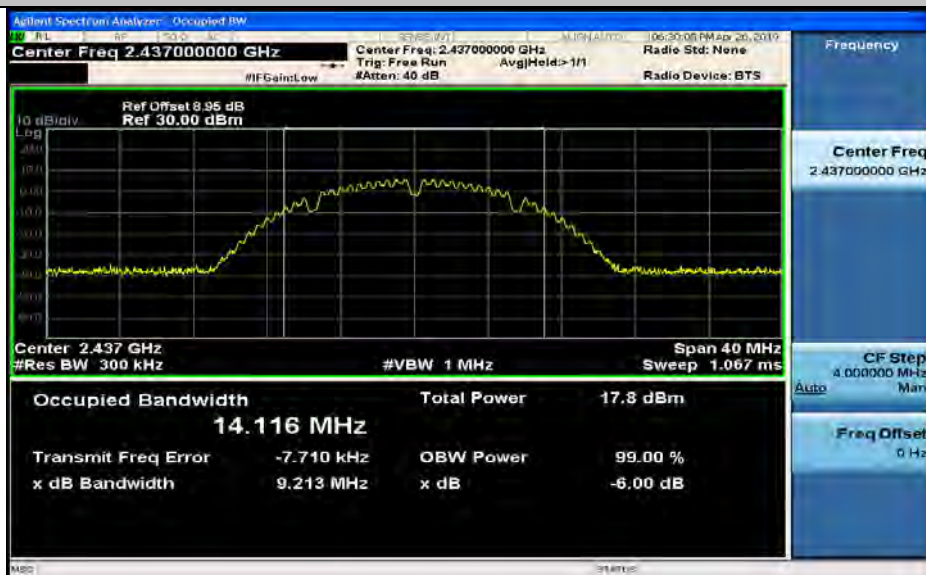
Occupied Bandwidth_11N40SISO_2452_Ant1



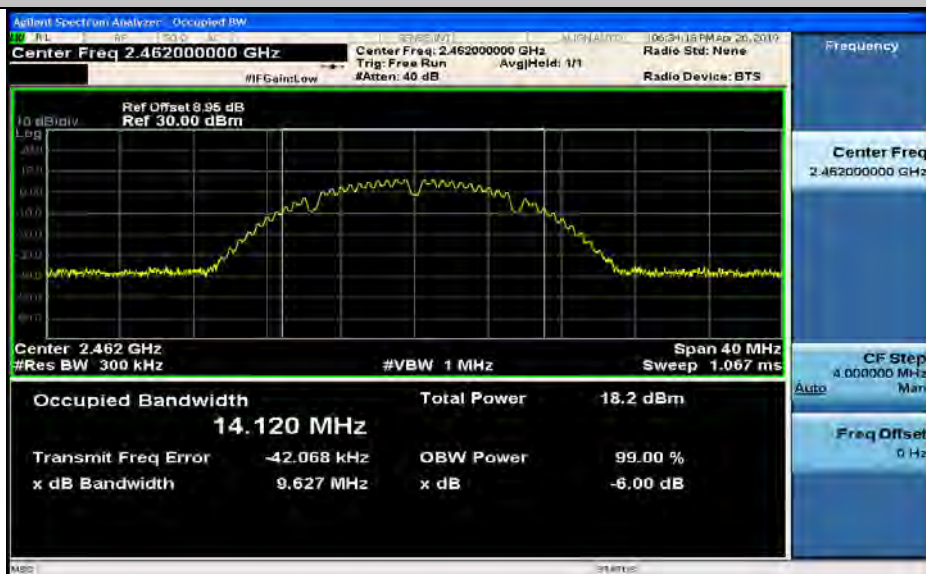
Occupied Bandwidth_11B_2412_Ant2



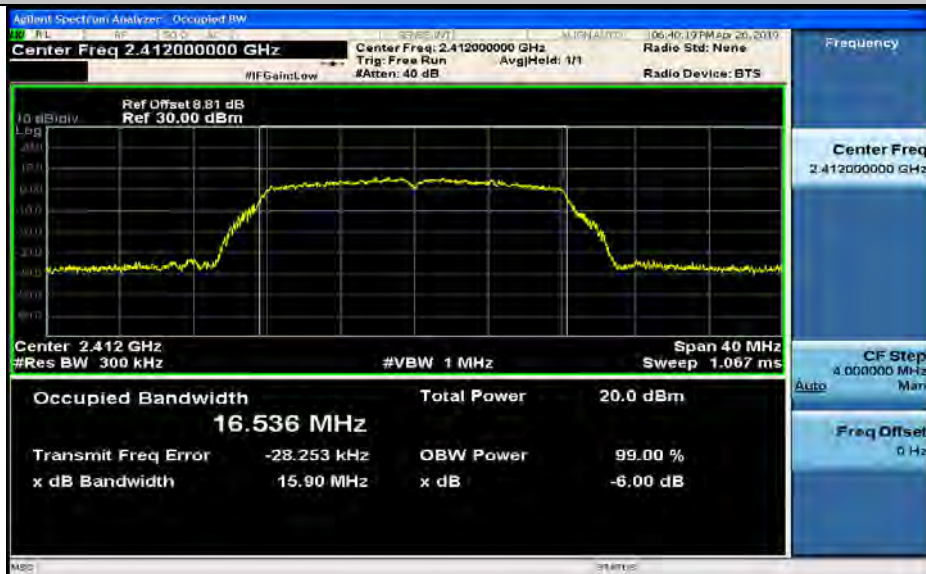
Occupied Bandwidth_11B_2437_Ant2



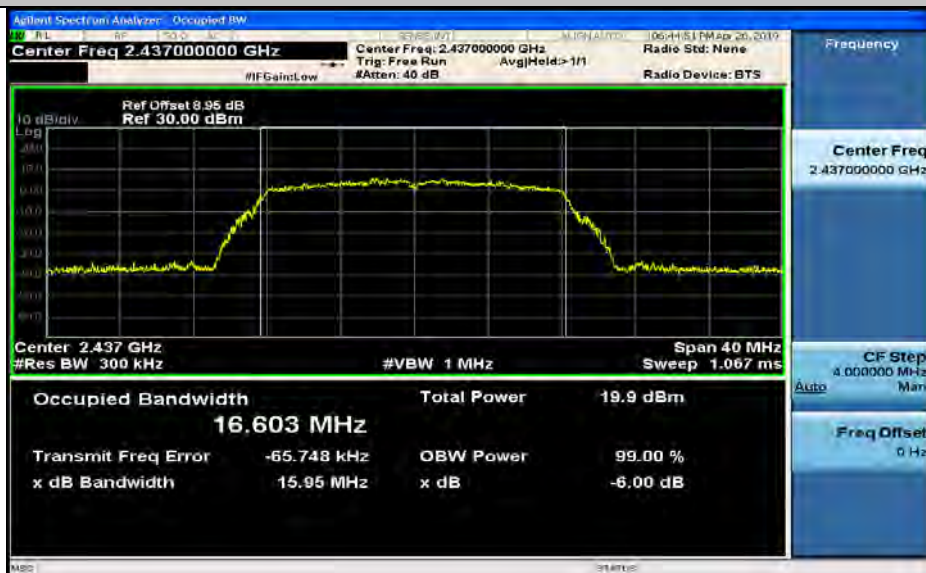
Occupied Bandwidth_11B_2462_Ant2



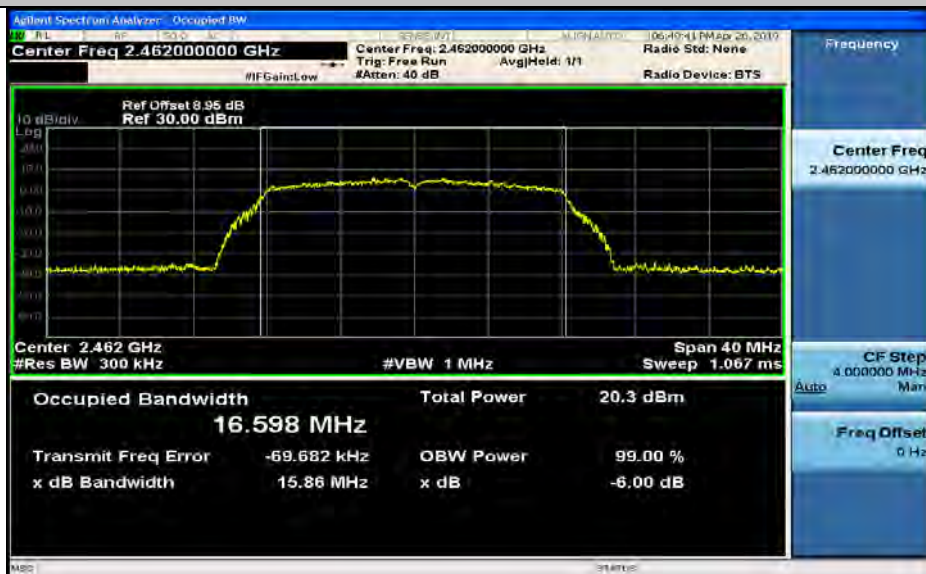
Occupied Bandwidth_11G_2412_Ant2



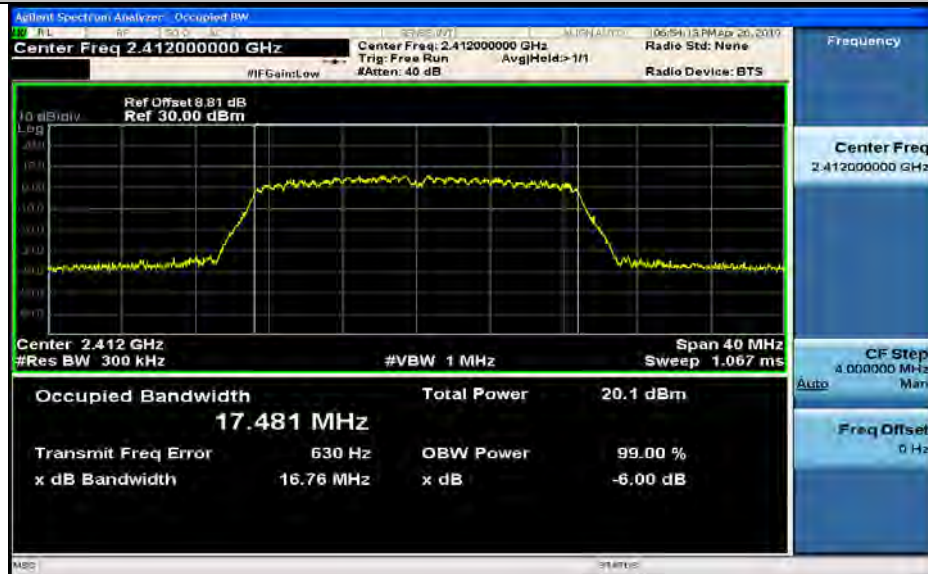
Occupied Bandwidth_11G_2437_Ant2



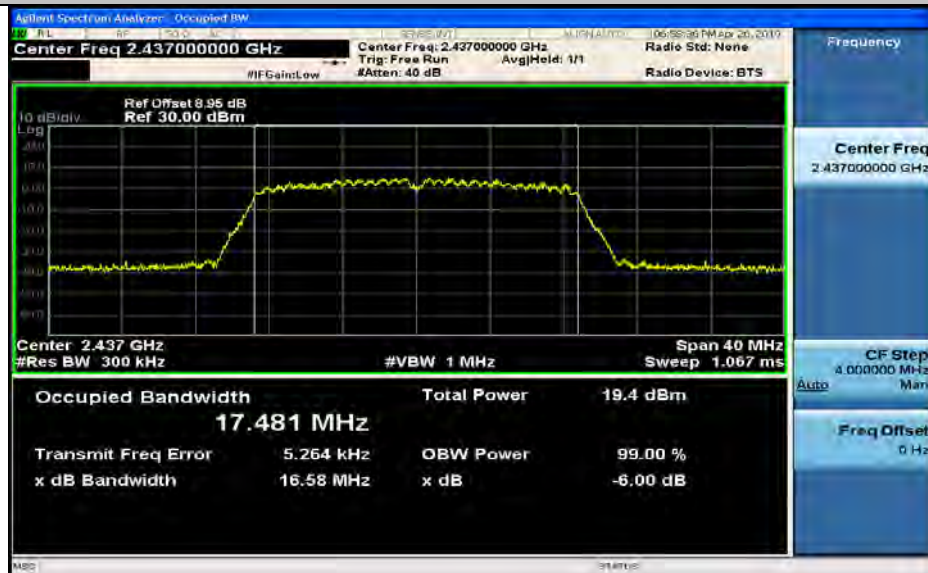
Occupied Bandwidth_11G_2462_Ant2



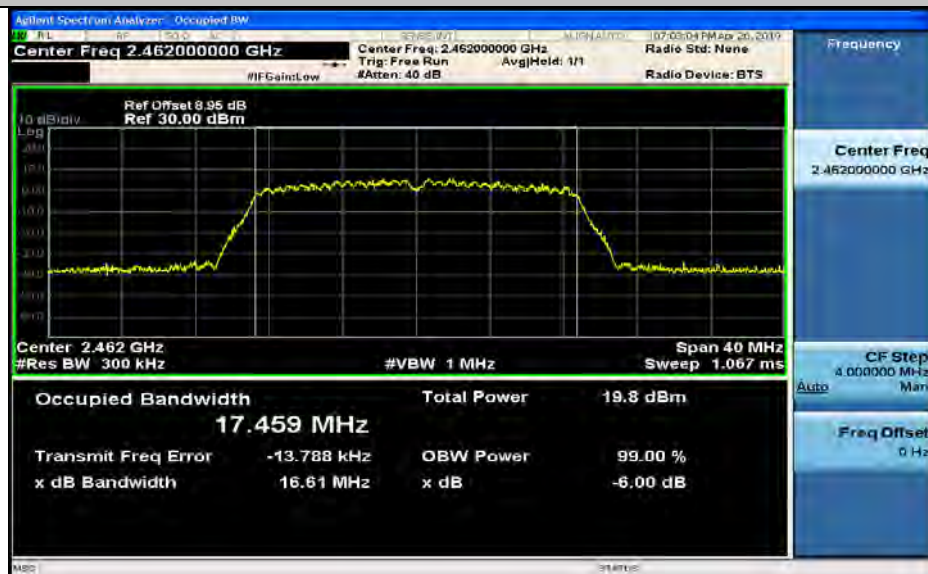
Occupied Bandwidth_11N20SISO_2412_Ant2



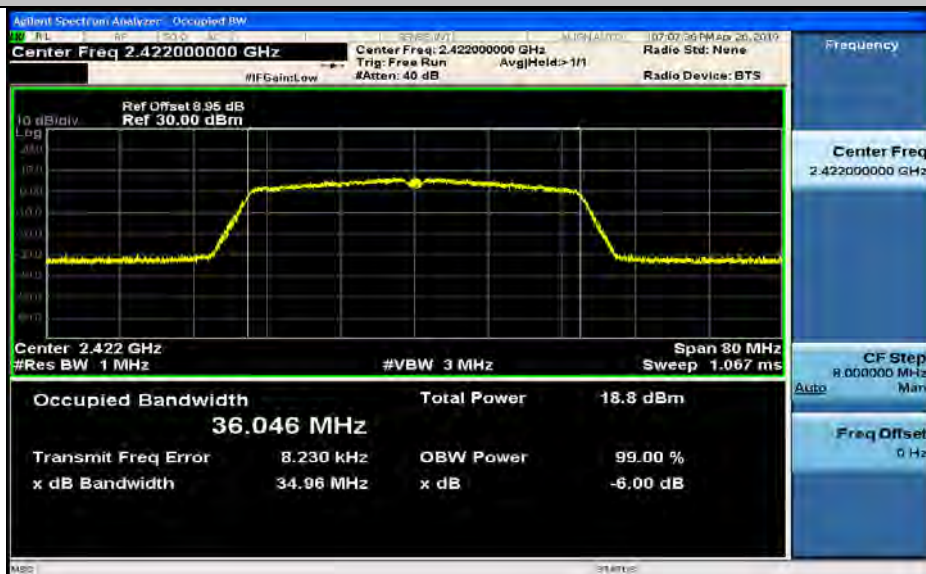
Occupied Bandwidth_11N20SISO_2437_Ant2



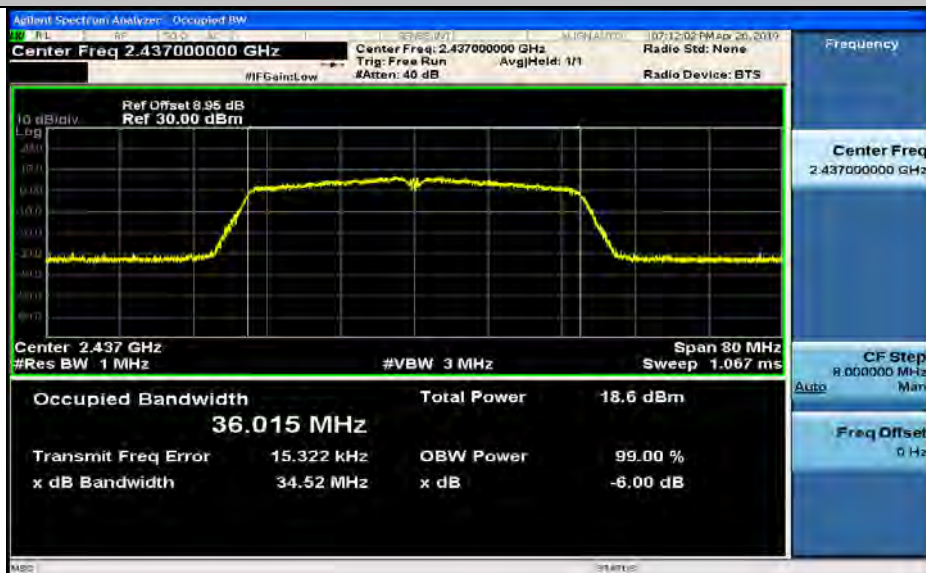
Occupied Bandwidth_11N20SISO_2462_Ant2



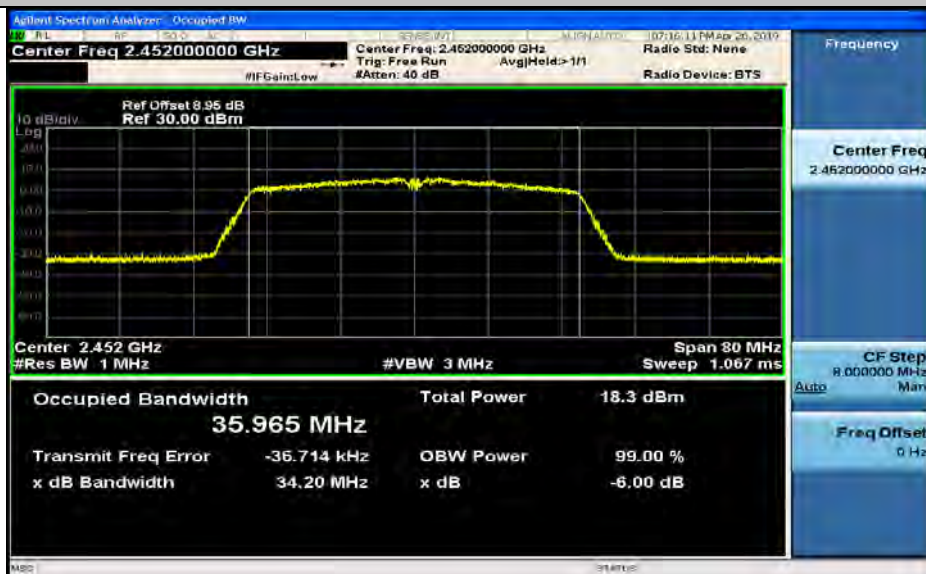
Occupied Bandwidth_11N40SISO_2422_Ant2



Occupied Bandwidth_11N40SISO_2437_Ant2



Occupied Bandwidth_11N40SISO_2452_Ant2



3.Maximum conducted (average) output power

Test Mode	Test Channel	Level [dBm]		10log(1/x) Factor[dB]		Power [dBm]			Limit [dBm]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	MIMO		
11B	2412	12.9	14.01	0.09	0.09	12.99	14.09	NA	30	PASS
11B	2437	13.57	14.03	0.05	0.07	13.63	14.10	NA	30	PASS
11B	2462	12.76	14.39	0.03	0.08	12.78	14.47	NA	30	PASS
11G	2412	11.57	13.32	0.49	0.44	12.05	13.76	NA	30	PASS
11G	2437	13.15	13.17	0.33	0.18	13.49	13.35	NA	30	PASS
11G	2462	12.33	13.58	0.15	0.31	12.48	13.89	NA	30	PASS
11N20MIMO	2412	11.36	12.69	0.30	0.18	11.66	12.87	15.32	28	PASS
11N20MIMO	2437	11.95	12.22	0.52	0.58	12.46	12.80	15.64	28	PASS
11N20MIMO	2462	11.13	12.6	0.55	0.30	11.68	12.90	15.34	28	PASS
11N40MIMO	2422	9.94	10.58	0.60	1.20	10.54	11.77	14.21	28	PASS
11N40MIMO	2437	10.15	10.43	0.78	0.53	10.93	10.96	13.96	28	PASS
11N40MIMO	2452	10.03	10.13	1.06	0.60	11.08	10.73	13.92	28	PASS

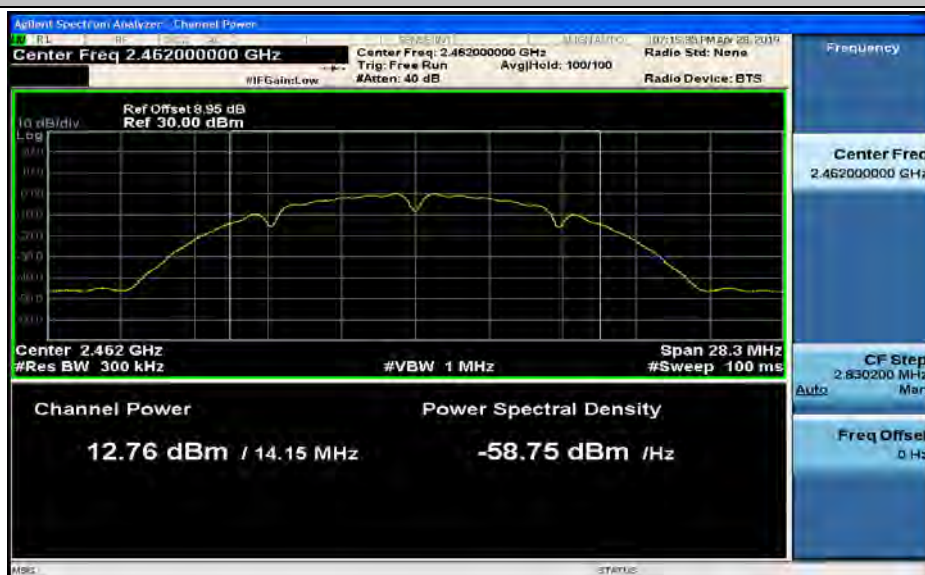
Maximum conducted (average) output power_11B_2412_Ant1



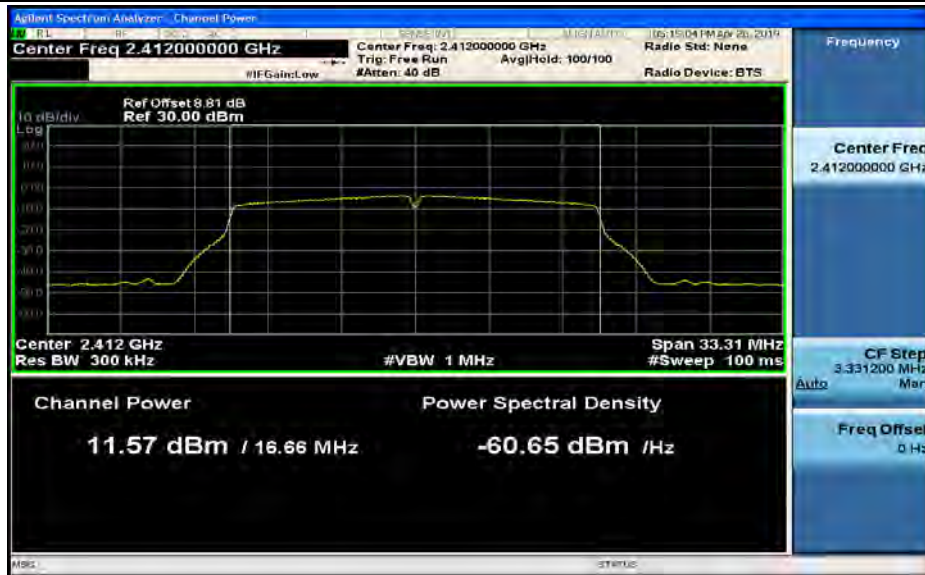
Maximum conducted (average) output power_11B_2437_Ant1



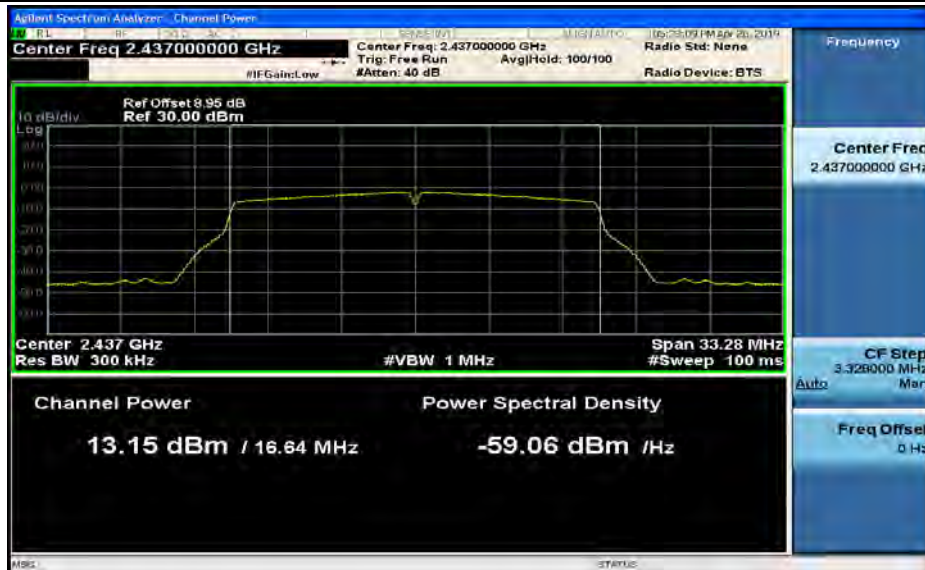
Maximum conducted (average) output power_11B_2462_Ant1



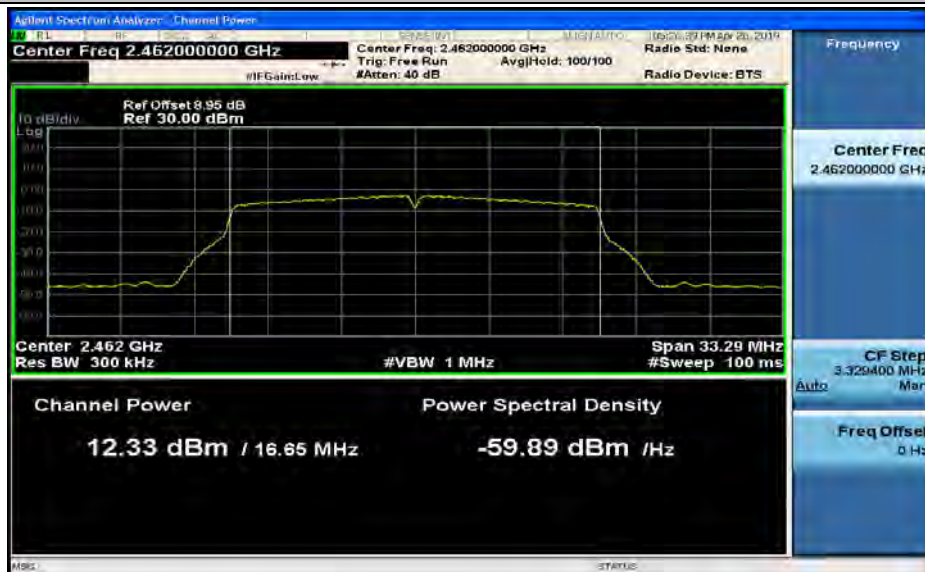
Maximum conducted (average) output power_11G_2412_Ant1



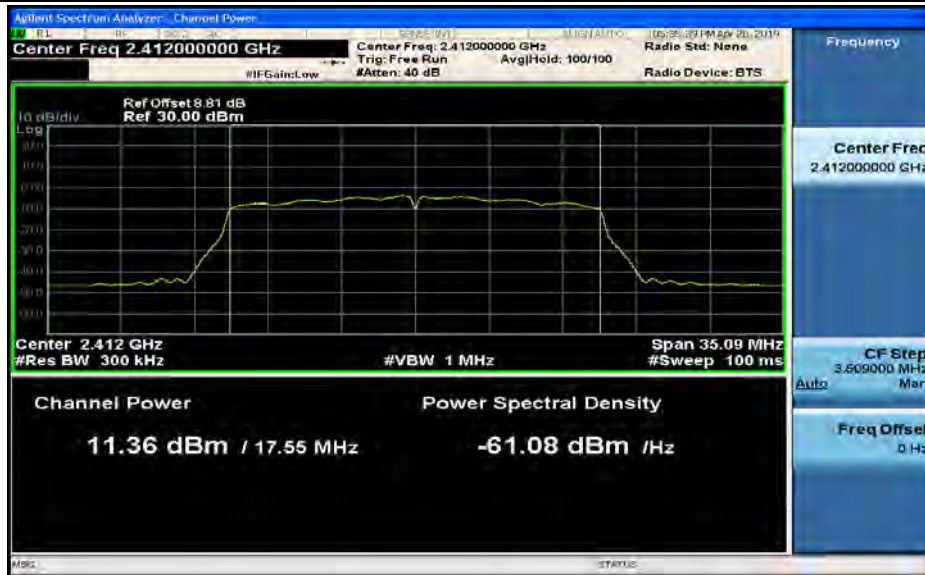
Maximum conducted (average) output power_11G_2437_Ant1



Maximum conducted (average) output power_11G_2462_Ant1



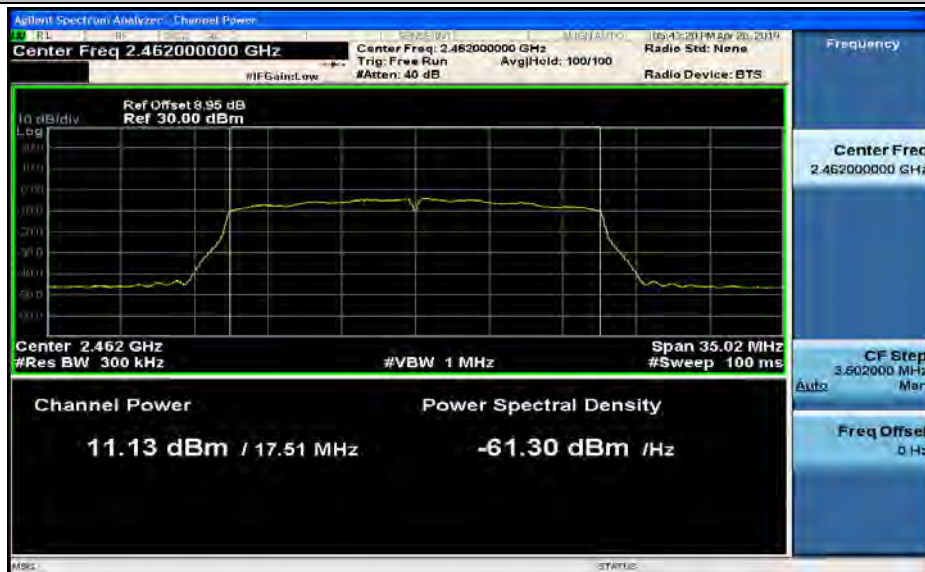
Maximum conducted (average) output power_11N20SISO_2412_Ant1



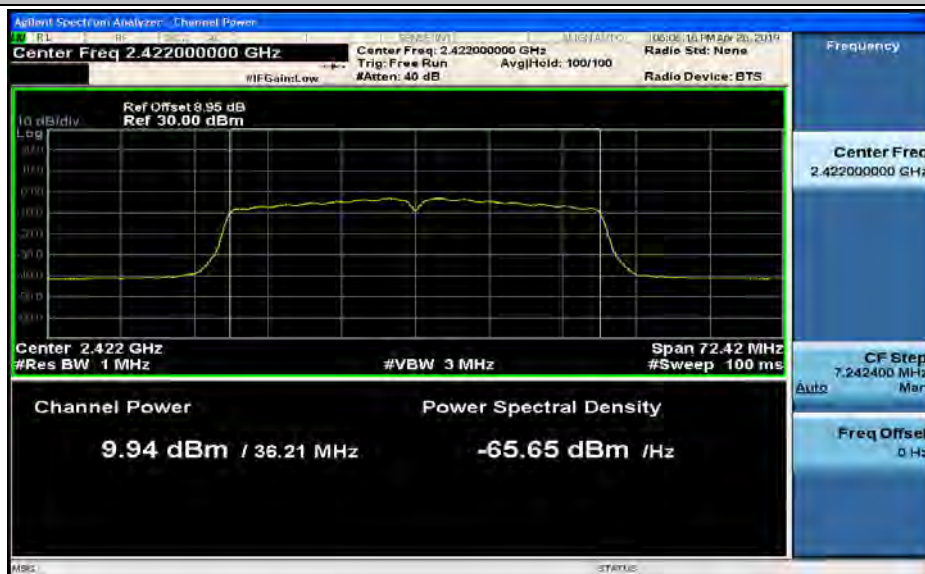
Maximum conducted (average) output power_11N20SISO_2437_Ant1



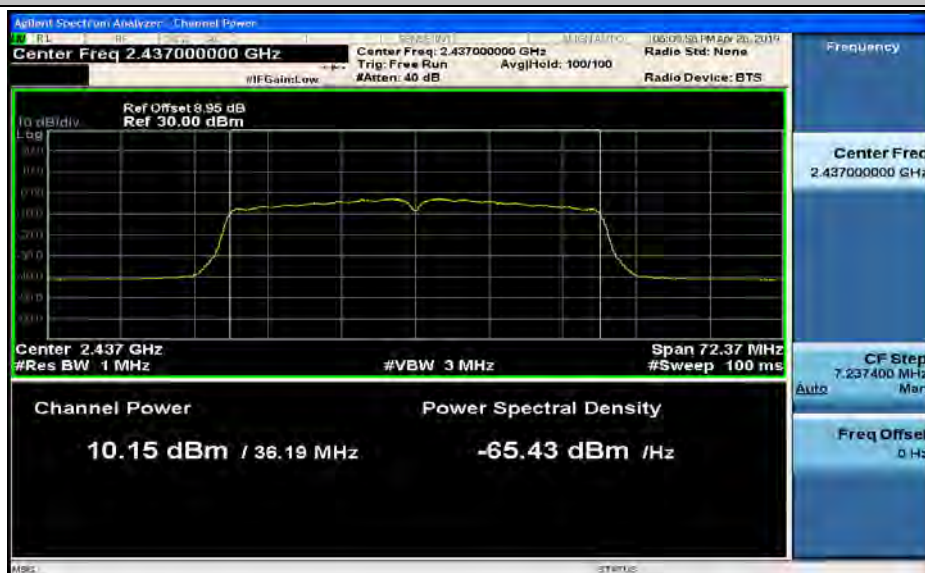
Maximum conducted (average) output power_11N20SISO_2462_Ant1



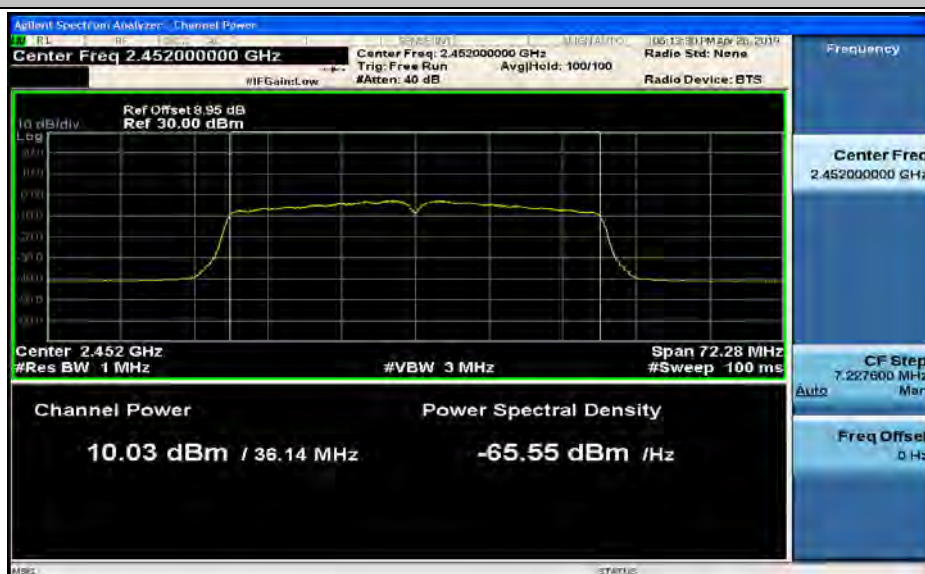
Maximum conducted (average) output power_11N40SISO_2422_Ant1



Maximum conducted (average) output power_11N40SISO_2437_Ant1



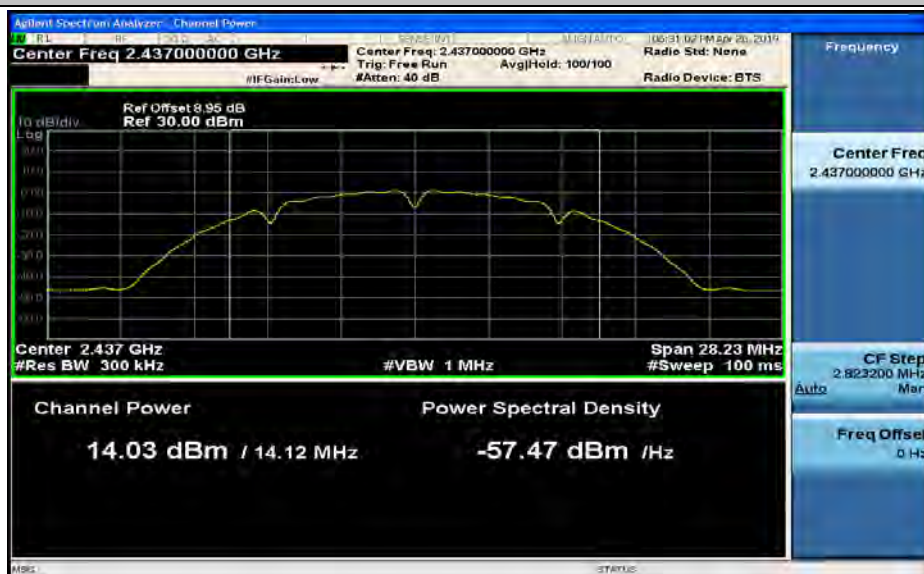
Maximum conducted (average) output power_11N40SISO_2452_Ant1



Maximum conducted (average) output power_11B_2412_Ant2



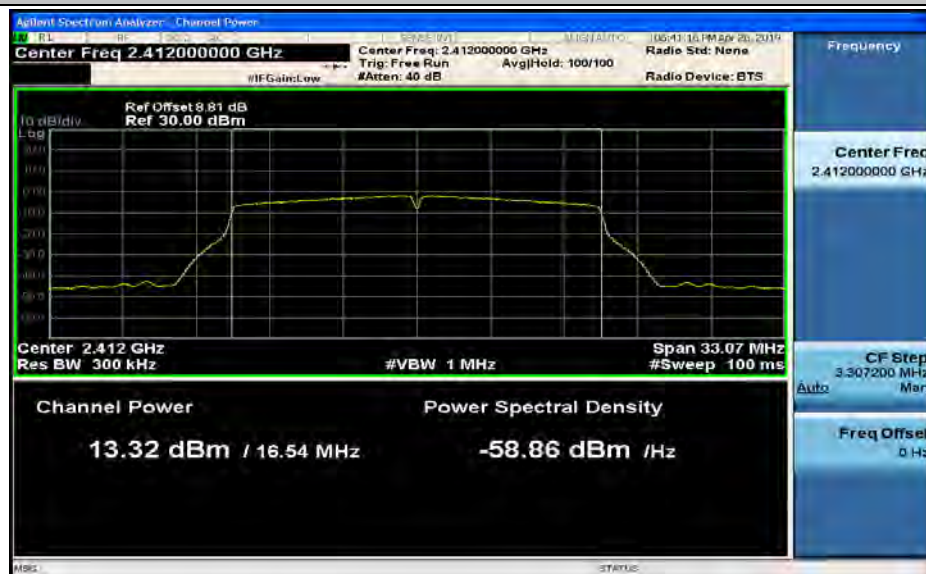
Maximum conducted (average) output power_11B_2437_Ant2



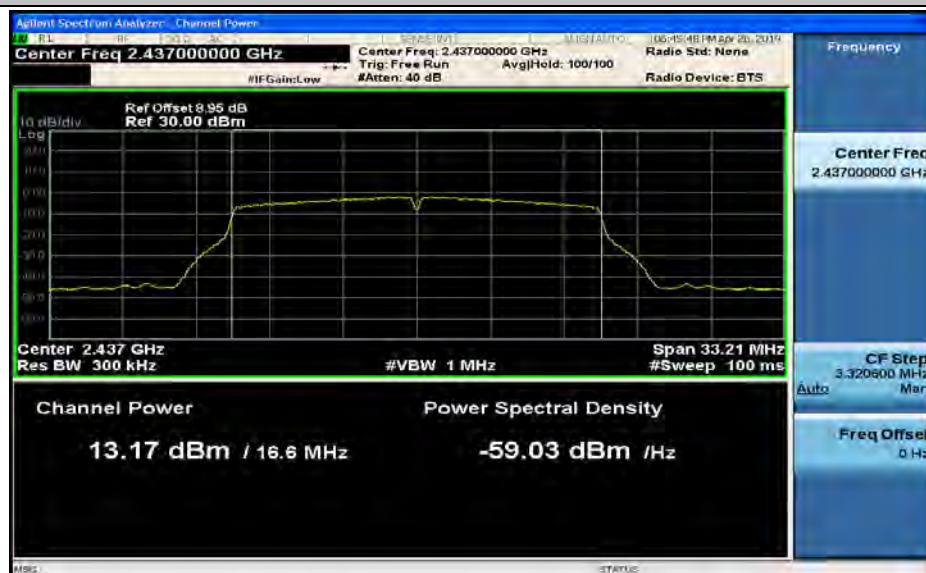
Maximum conducted (average) output power_11B_2462_Ant2



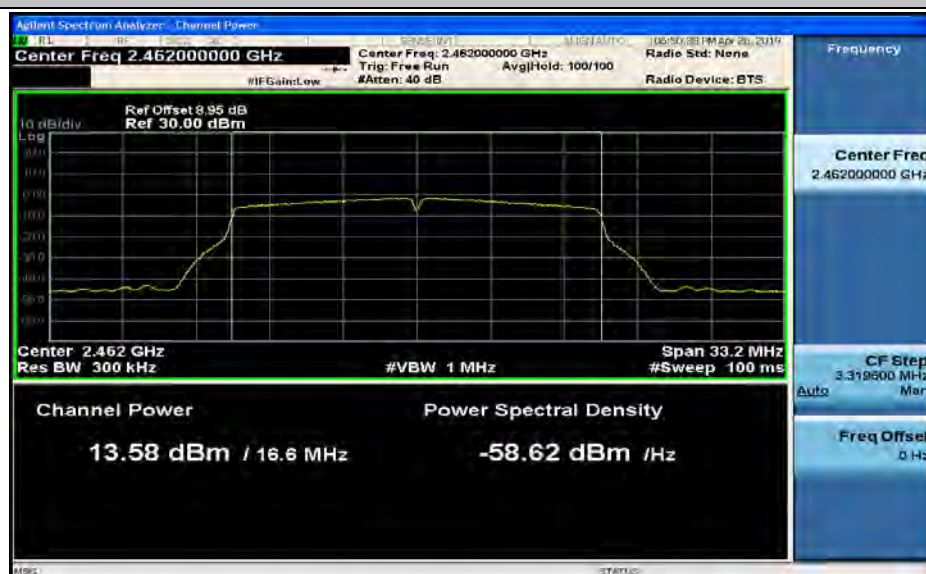
Maximum conducted (average) output power_11G_2412_Ant2



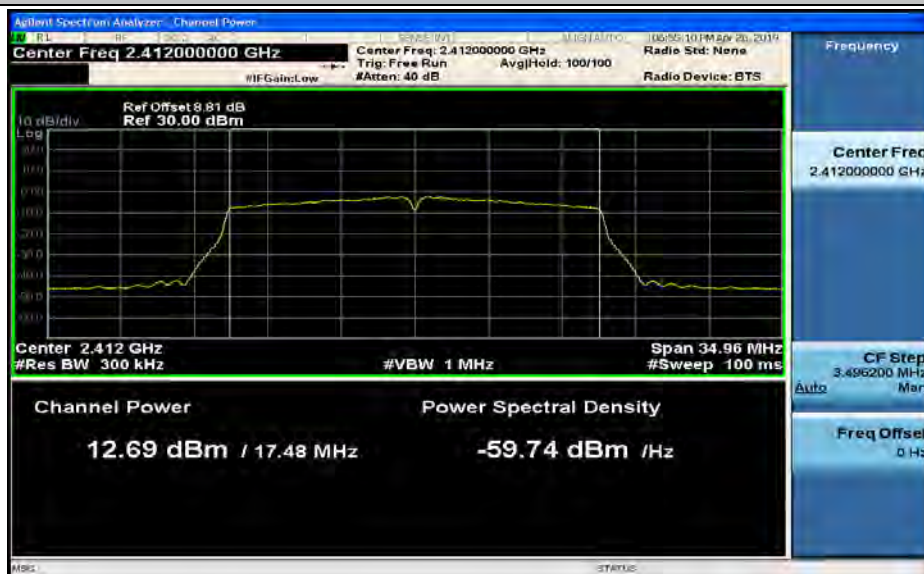
Maximum conducted (average) output power_11G_2437_Ant2



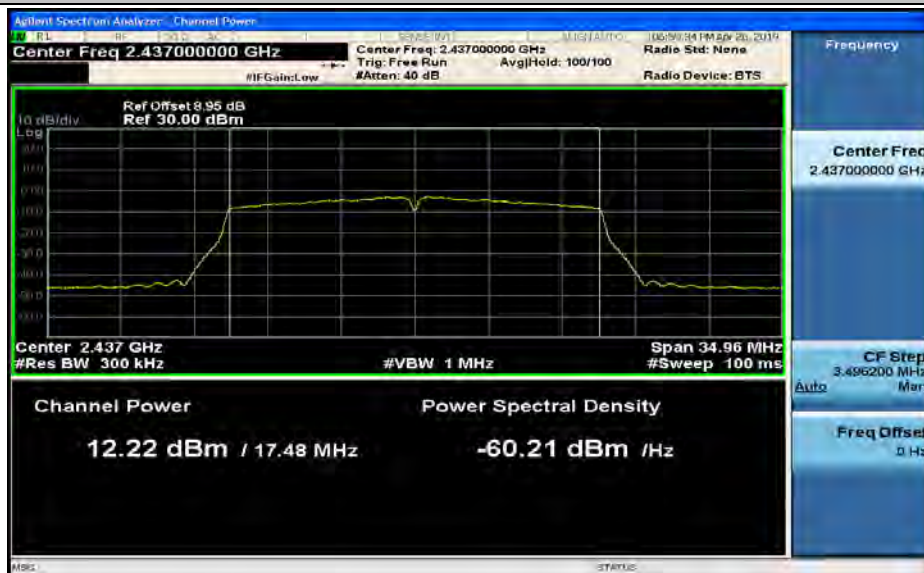
Maximum conducted (average) output power_11G_2462_Ant2



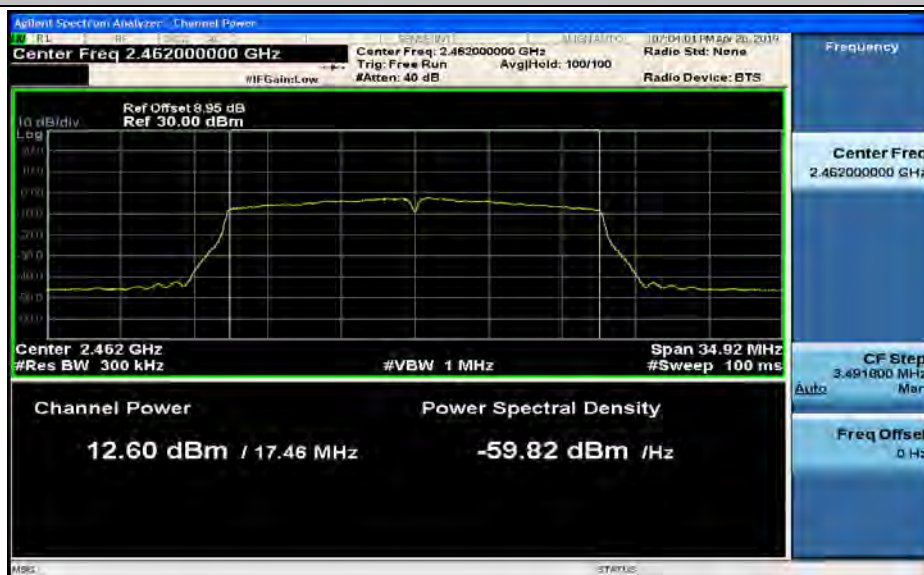
Maximum conducted (average) output power_11N20SISO_2412_Ant2



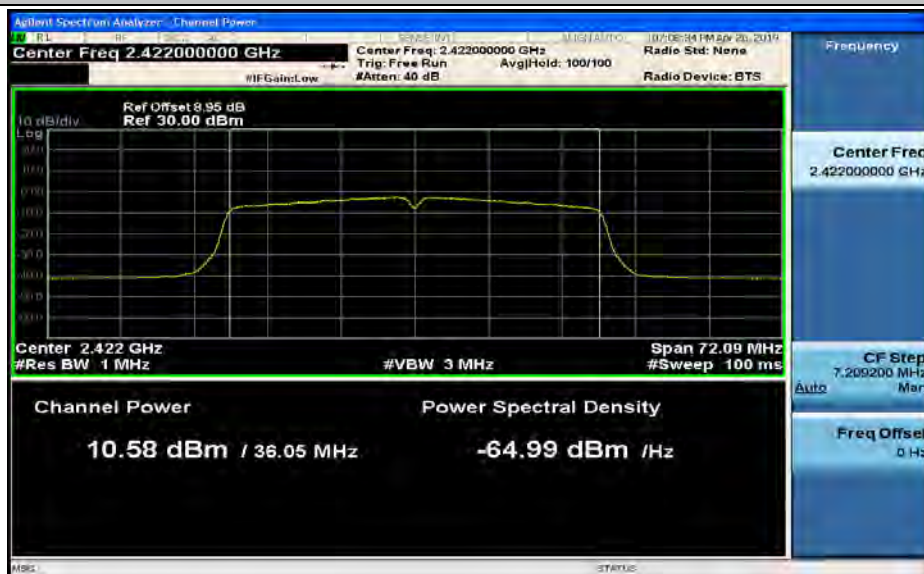
Maximum conducted (average) output power_11N20SISO_2437_Ant2



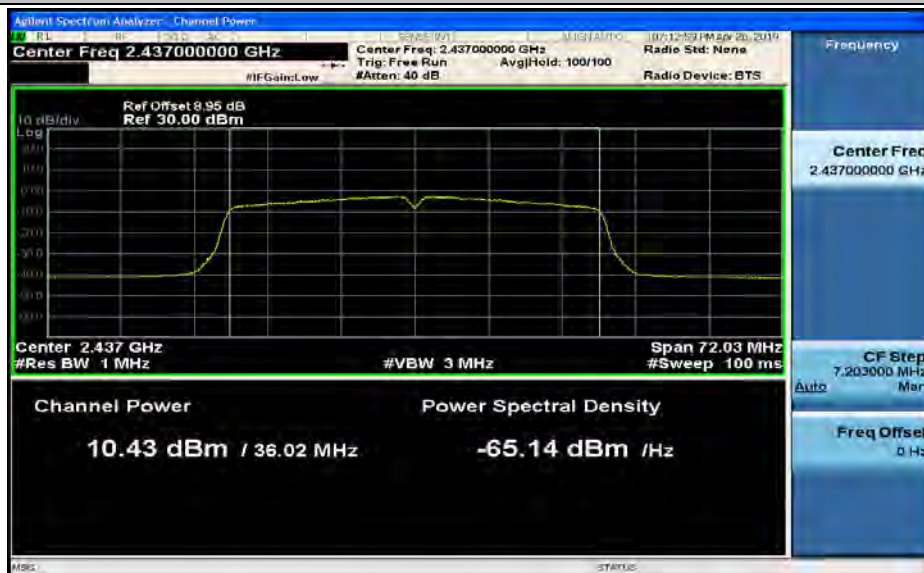
Maximum conducted (average) output power_11N20SISO_2462_Ant2



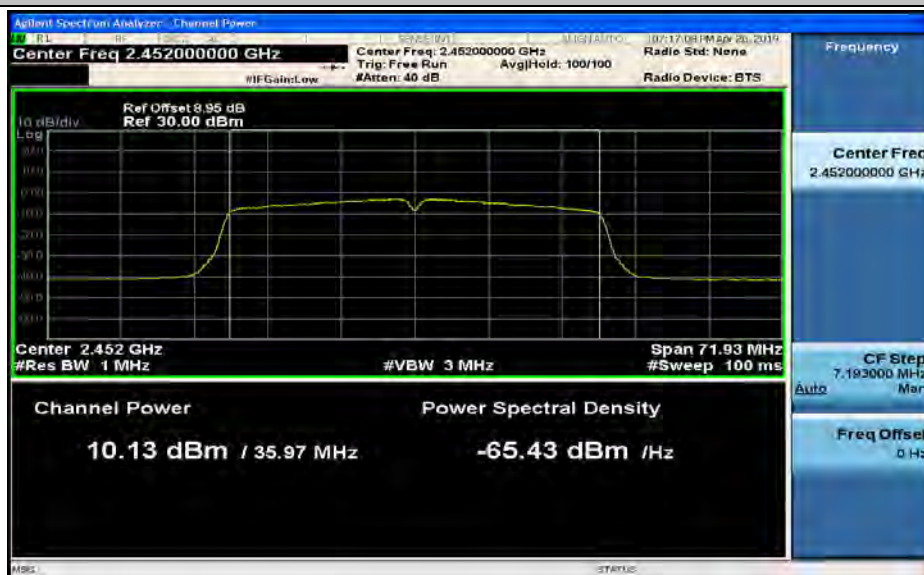
Maximum conducted (average) output power_11N40SISO_2422_Ant2



Maximum conducted (average) output power_11N40SISO_2437_Ant2



Maximum conducted (average) output power_11N40SISO_2452_Ant2



**4.Maximum(average) power spectral density**

Test Mode	Test Channel	Level [dBm/3kHz]		10log(1/x) Factor[dB]		PSD[dBm/3kHz]			Limit[dBm/3kHz]	Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	MIMO		
11B	2412	-19.06	-15.82	0.09	0.09	-18.97	-15.73	NA	8.00	PASS
11B	2437	-18.38	-17.35	0.05	0.07	-18.33	-17.28	NA	8.00	PASS
11B	2462	-18.93	-17.38	0.03	0.08	-18.90	-17.30	NA	8.00	PASS
11G	2412	-21.84	-20.01	0.49	0.44	-21.35	-19.57	NA	8.00	PASS
11G	2437	-20.02	-20.11	0.33	0.18	-19.69	-19.93	NA	8.00	PASS
11G	2462	-21.08	-19.72	0.15	0.31	-20.93	-19.41	NA	8.00	PASS
11N20MIMO	2412	-21.76	-20.47	0.30	0.18	-21.46	-20.29	-17.83	6.00	PASS
11N20MIMO	2437	-21.34	-20.78	0.52	0.58	-20.82	-20.20	-17.49	6.00	PASS
11N20MIMO	2462	-21.65	-20.27	0.55	0.30	-21.10	-19.97	-17.49	6.00	PASS
11N40MIMO	2422	-26.43	-26.46	0.60	1.20	-25.83	-25.26	-22.53	6.00	PASS
11N40MIMO	2437	-26.57	-26.40	0.78	0.53	-25.79	-25.87	-22.82	6.00	PASS
11N40MIMO	2452	-26.36	-26.80	1.06	0.60	-25.30	-26.20	-22.72	6.00	PASS

Maximum(average) power spectral density_11B_2412_Ant1



Maximum(average) power spectral density_11B_2437_Ant1



Maximum(average) power spectral density_11B_2462_Ant1



Maximum(average) power spectral density_11G_2412_Ant1



Maximum(average) power spectral density_11G_2437_Ant1



Maximum(average) power spectral density_11G_2462_Ant1



Maximum(average) power spectral density_11N20SISO_2412_Ant1



Maximum(average) power spectral density_11N20SISO_2437_Ant1



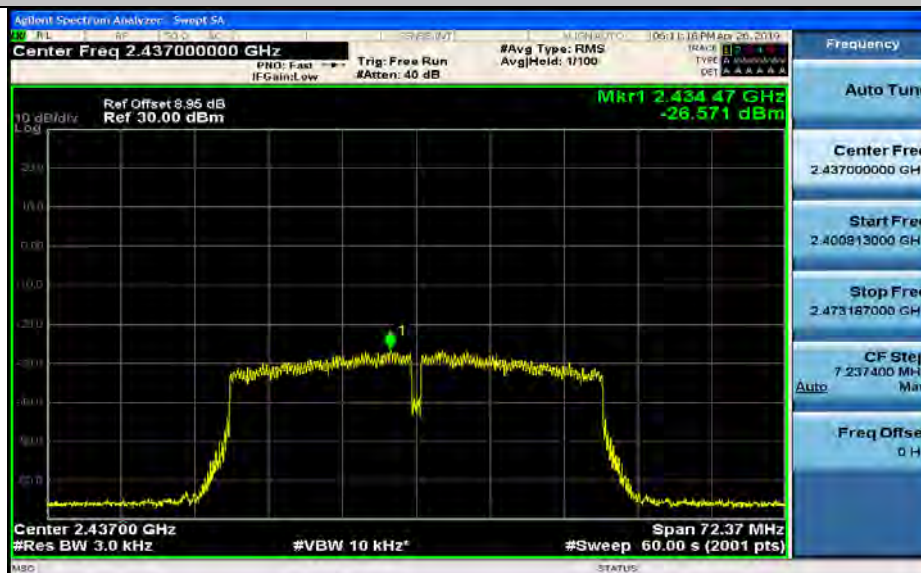
Maximum(average) power spectral density_11N20SISO_2462_Ant1



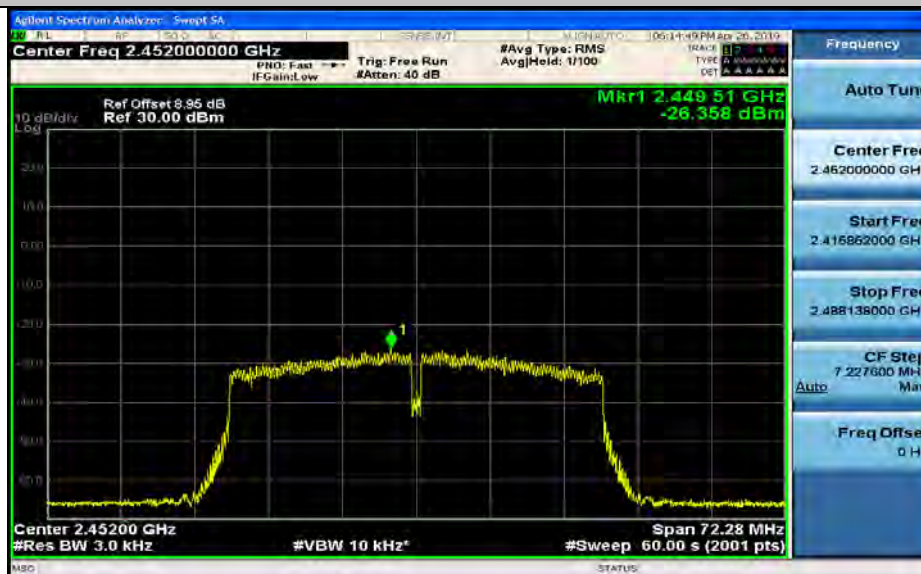
Maximum(average) power spectral density_11N40SISO_2422_Ant1



Maximum(average) power spectral density_11N40SISO_2437_Ant1



Maximum(average) power spectral density_11N40SISO_2452_Ant1



Maximum(average) power spectral density_11B_2412_Ant2



Maximum(average) power spectral density_11B_2437_Ant2



Maximum(average) power spectral density_11B_2462_Ant2



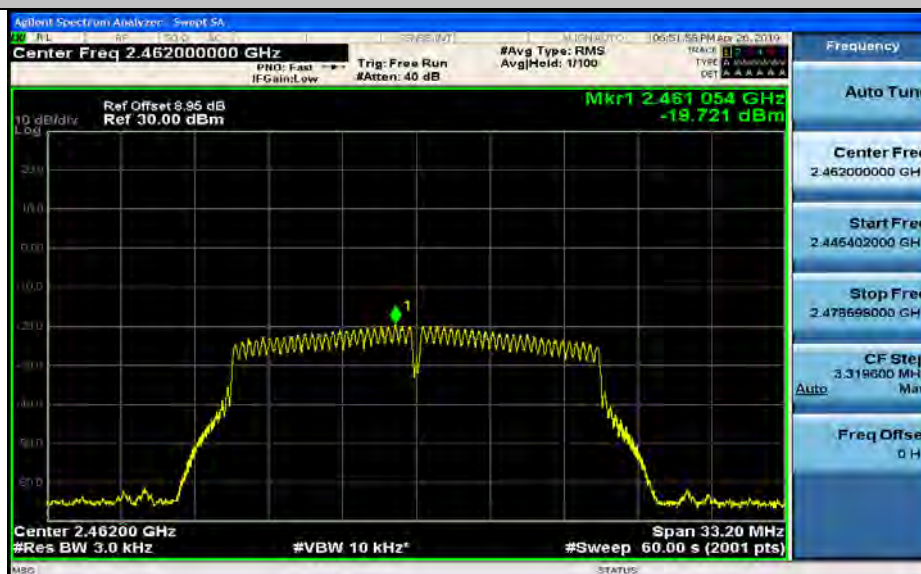
Maximum(average) power spectral density_11G_2412_Ant2



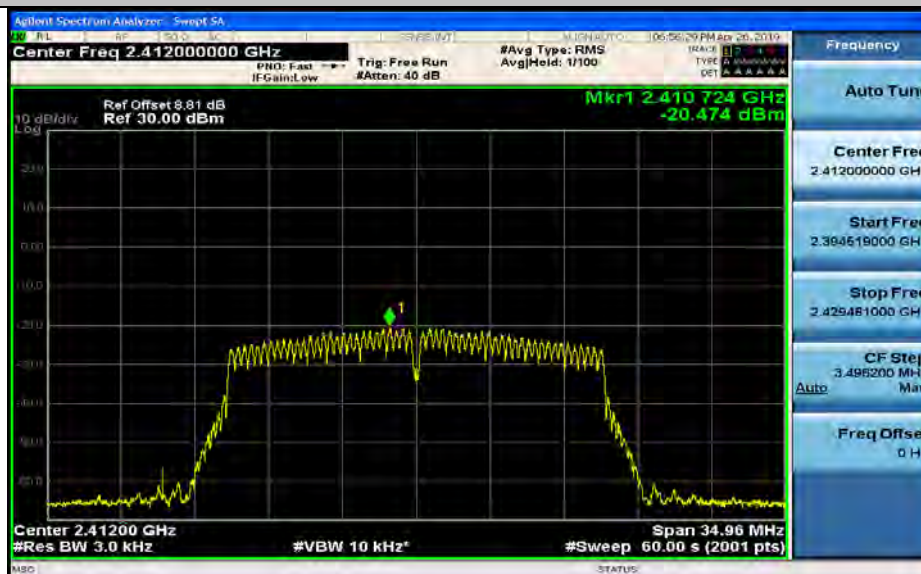
Maximum(average) power spectral density_11G_2437_Ant2



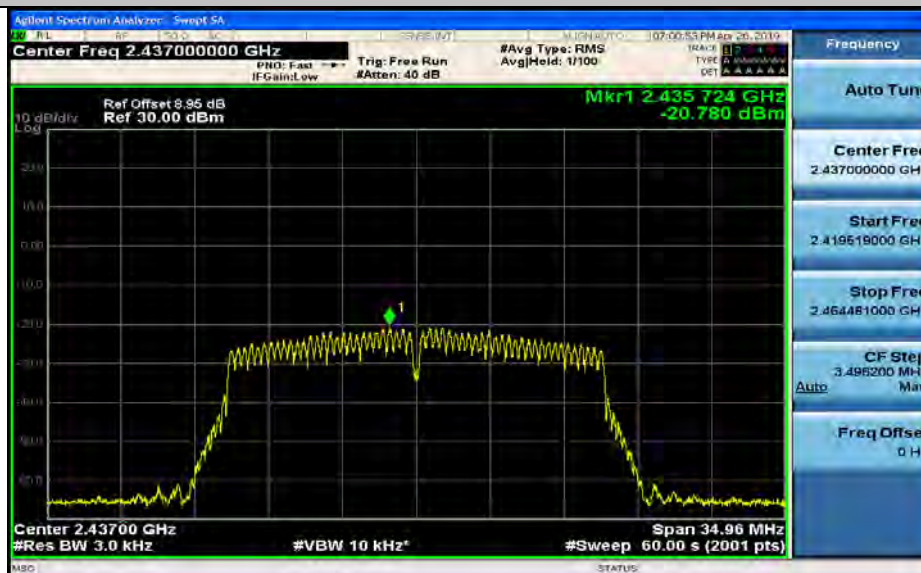
Maximum(average) power spectral density_11G_2462_Ant2



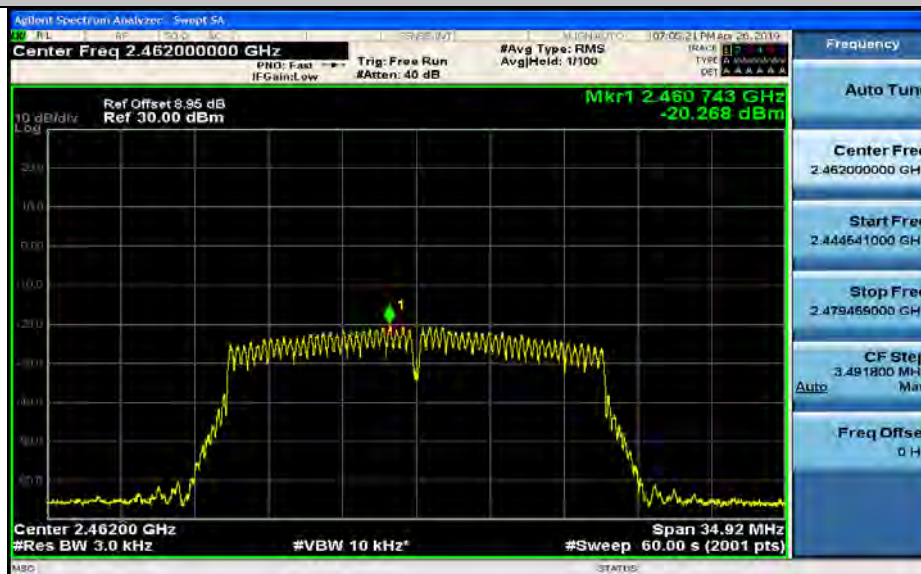
Maximum(average) power spectral density_11N20SISO_2412_Ant2



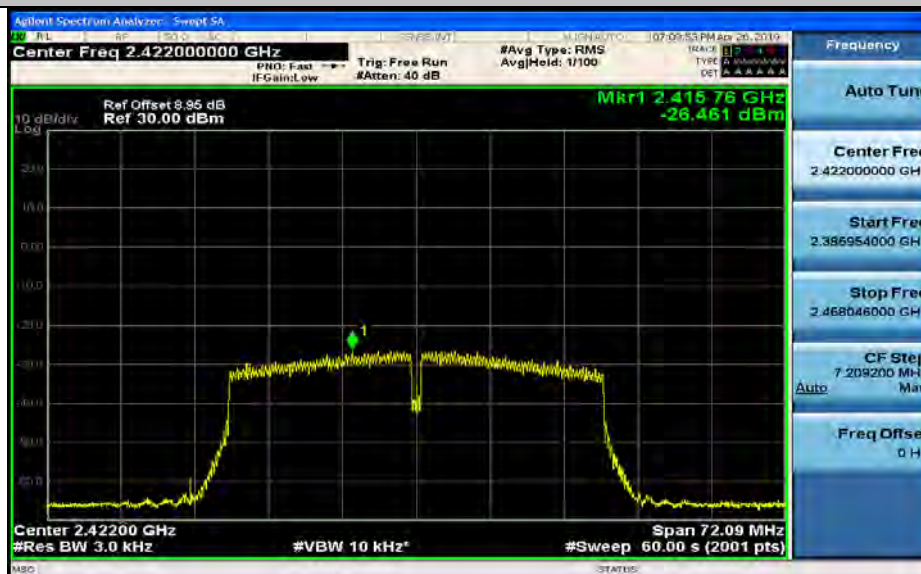
Maximum(average) power spectral density_11N20SISO_2437_Ant2



Maximum(average) power spectral density_11N20SISO_2462_Ant2



Maximum(average) power spectral density_11N40SISO_2422_Ant2



Maximum(average) power spectral density_11N40SISO_2437_Ant2



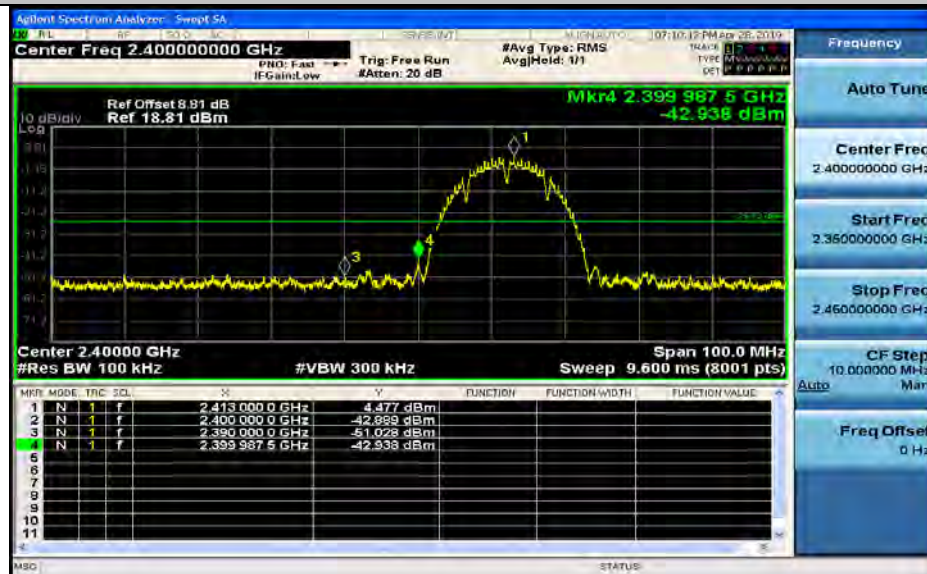
Maximum(average) power spectral density_11N40SISO_2452_Ant2



**5.Band-edge for RF Conducted Emissions**

Test Mode	Test Channel	Carrier Power[dBm]		Max. Spurious Level [dBm]		Limit [dBm]		Verdict
		Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11B	2412	4.48	4.36	-42.89	-42.12	-25.52	-25.64	PASS
11B	2462	3.05	6.01	-49.59	-50.79	-26.95	-23.99	PASS
11G	2412	1.51	3.59	-40.22	-38.57	-28.49	-26.41	PASS
11G	2462	1.68	4.15	-49.56	-49.30	-28.32	-25.85	PASS
11N20SISO	2412	1.99	2.89	-41.61	-41.28	-28.02	-27.11	PASS
11N20SISO	2462	1.74	2.38	-50.67	-49.54	-28.26	-27.62	PASS
11N40SISO	2422	-1.96	-0.94	-40.01	-40.26	-31.96	-30.94	PASS
11N40SISO	2452	-1.83	-1.38	-51.10	-52.01	-31.83	-31.38	PASS

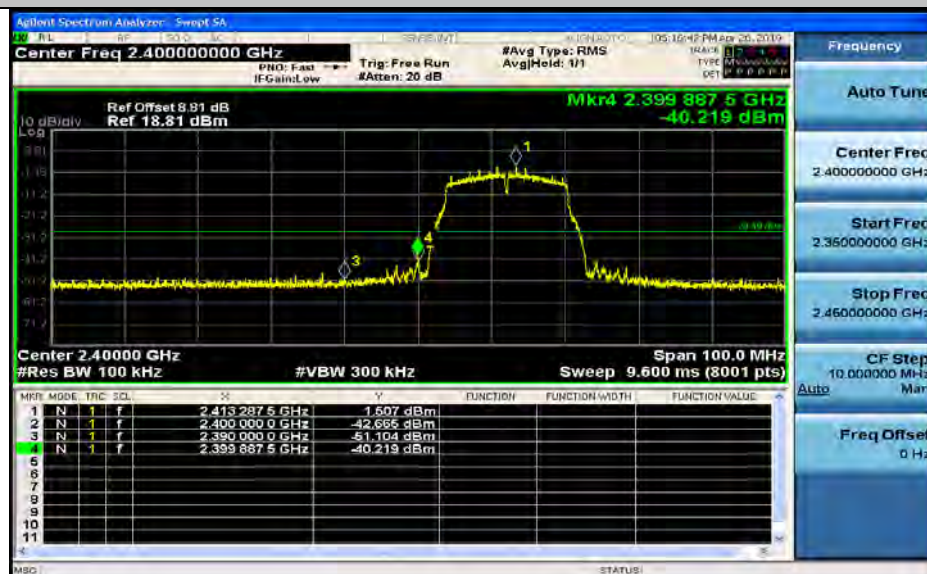
Band-edge for RF Conducted Emissions_11B_2412_Ant1



Band-edge for RF Conducted Emissions_11B_2462_Ant1



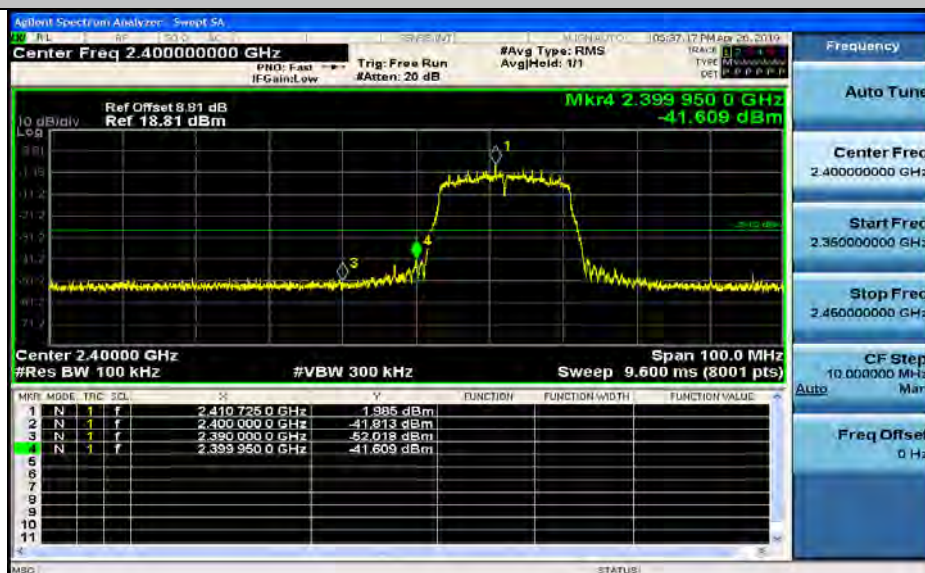
Band-edge for RF Conducted Emissions_11G_2412_Ant1



Band-edge for RF Conducted Emissions_11G_2462_Ant1



Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant1



Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant1



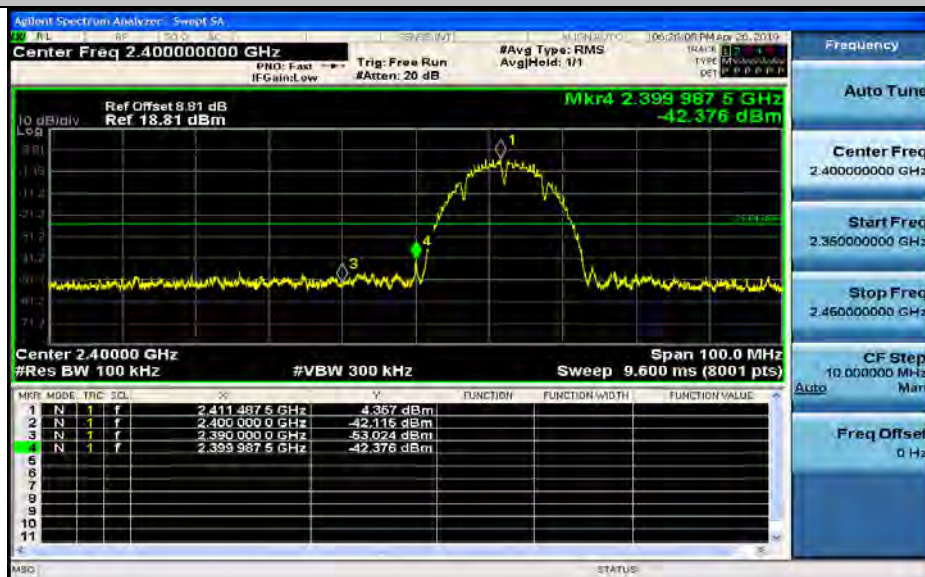
Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant1



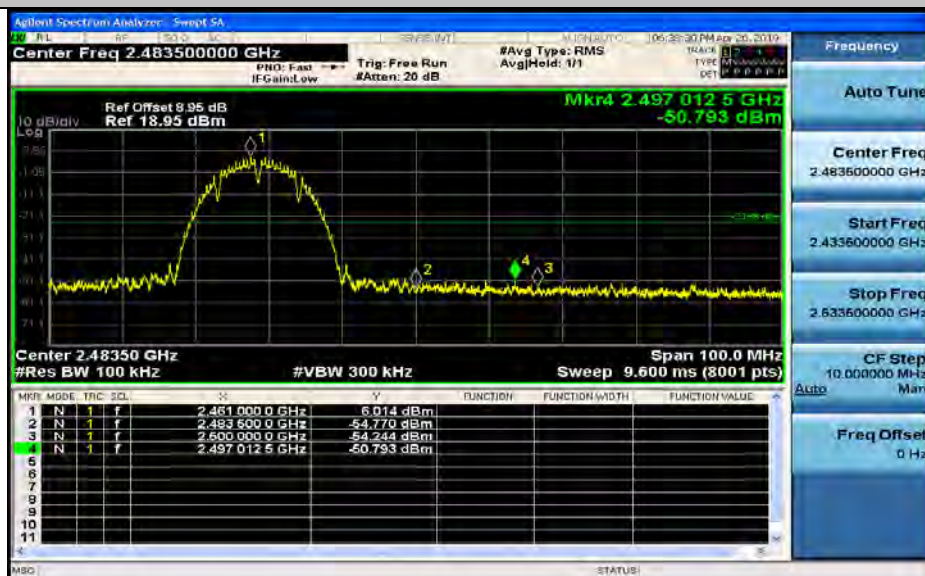
Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant1



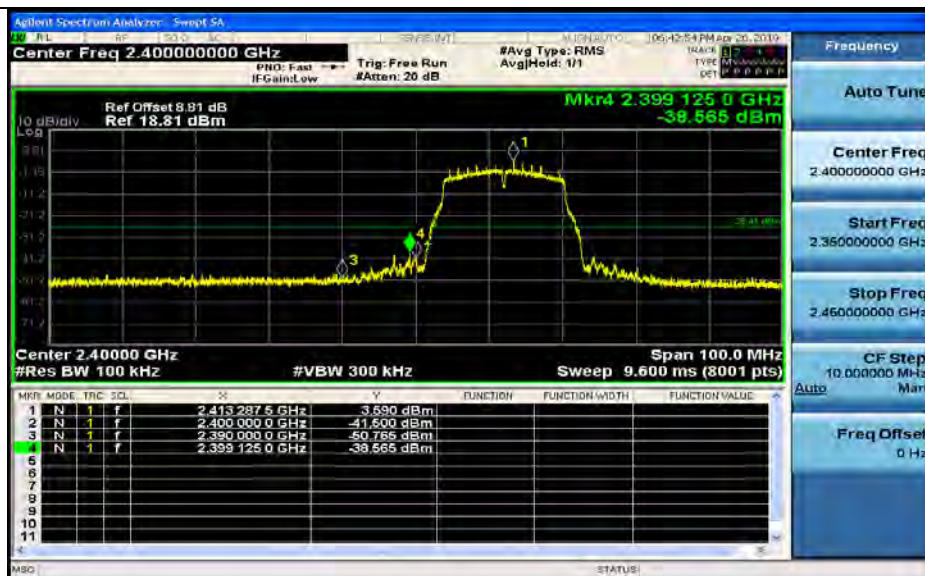
Band-edge for RF Conducted Emissions_11B_2412_Ant2



Band-edge for RF Conducted Emissions_11B_2462_Ant2



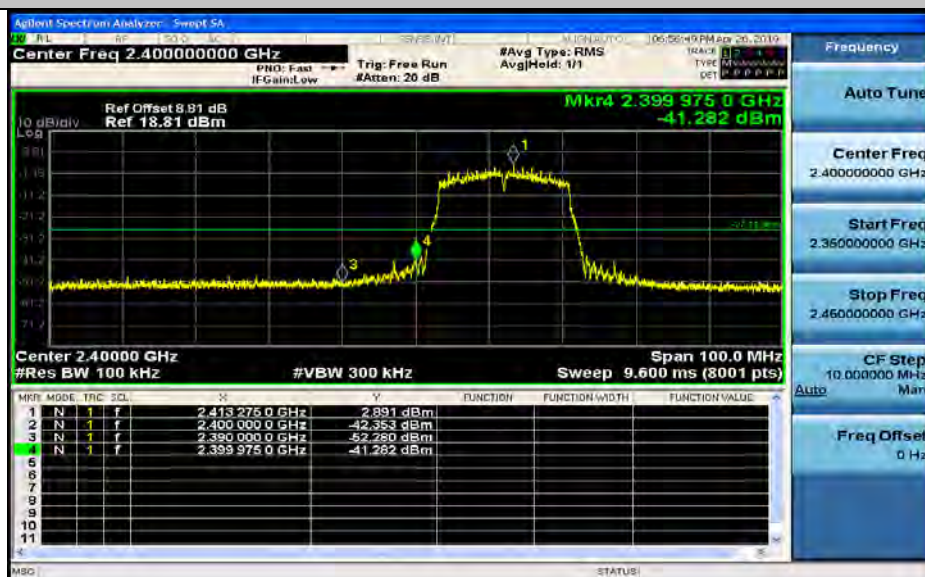
Band-edge for RF Conducted Emissions_11G_2412_Ant2



Band-edge for RF Conducted Emissions_11G_2462_Ant2



Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant2



Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant2



Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant2



Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant2



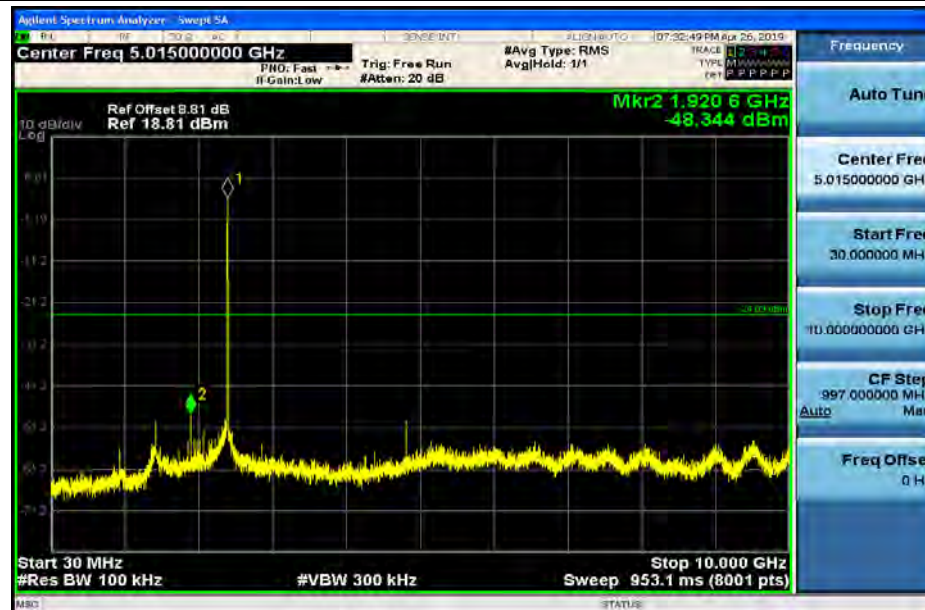
6.RF Conducted Spurious Emissions

Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]		Max. Level [dBm]		Limit [dBm]		Verdict
						Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11B	2412	30	10000	100	300	5.91	5.70	-48.34	-49.58	<- 24.09	<- 24.30	PASS
11B	2412	10000	26000	100	300	5.913	5.699	-43.527	-44.529	<- 24.087	<- 24.301	PASS
11B	2437	30	10000	100	300	5.70	5.67	-49.89	-48.23	<- 24.30	<- 24.33	PASS
11B	2437	10000	26000	100	300	5.702	5.666	-44.117	-43.368	<- 24.298	<- 24.334	PASS
11B	2462	30	10000	100	300	6.05	6.04	-49.69	-50.47	<- 23.95	<- 23.96	PASS
11B	2462	10000	26000	100	300	6.046	6.041	-44.000	-43.147	<- 23.954	<- 23.959	PASS
11G	2412	30	10000	100	300	3.74	3.69	-47.68	-48.44	<- 26.26	<- 26.31	PASS
11G	2412	10000	26000	100	300	3.739	3.693	-44.691	-43.400	<- 26.261	<- 26.307	PASS
11G	2437	30	10000	100	300	3.57	3.14	-46.36	-51.68	<- 26.43	<- 26.86	PASS
11G	2437	10000	26000	100	300	3.574	3.138	-44.706	-43.925	<- 26.426	<- 26.862	PASS
11G	2462	30	10000	100	300	3.97	3.56	-48.18	-46.51	<- 26.04	<- 26.44	PASS
11G	2462	10000	26000	100	300	3.965	3.564	-43.846	-43.856	<- 26.035	<- 26.436	PASS
11N20SISO	2412	30	10000	100	300	3.12	3.77	-46.48	-47.66	<- 26.88	<- 26.23	PASS
11N20SISO	2412	10000	26000	100	300	3.117	3.766	-44.670	-44.655	<- 26.883	<- 26.234	PASS
11N20SISO	2437	30	10000	100	300	3.08	3.57	-47.65	-47.93	<- 26.93	<- 26.43	PASS
11N20SISO	2437	10000	26000	100	300	3.075	3.571	-44.576	-44.125	<- 26.925	<- 26.429	PASS
11N20SISO	2462	30	10000	100	300	3.92	3.57	-47.18	-46.57	<- 26.08	<- 26.43	PASS
11N20SISO	2462	10000	26000	100	300	3.922	3.571	-44.588	-43.768	<- 26.078	<- 26.429	PASS
11N40SISO	2422	30	10000	100	300	-0.50	-0.57	-44.75	-44.94	<- 30.50	<- 30.57	PASS
11N40SISO	2422	10000	26000	100	300	-0.499	-0.574	-44.849	-43.920	<- 30.499	<- 30.574	PASS
11N40SISO	2437	30	10000	100	300	-0.63	-0.60	-45.97	-45.06	<- 30.63	<- 30.60	PASS
11N40SISO	2437	10000	26000	100	300	-0.63	-0.603	-44.166	-43.633	<- 30.63	<- 30.603	PASS

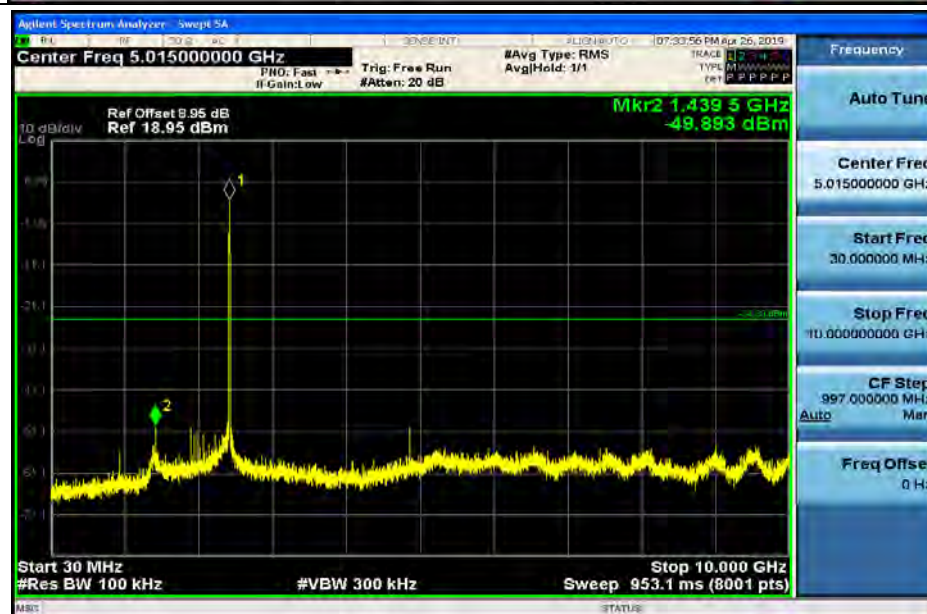


11N40SISO	2452	30	10000	100	300	-1.04	-1.29	-46.21	-45.79	<- 31.04	<- 31.29	PASS
11N40SISO	2452	10000	26000	100	300	-1.043	-1.288	-43.768	-43.689	<- 31.043	<- 31.288	PASS

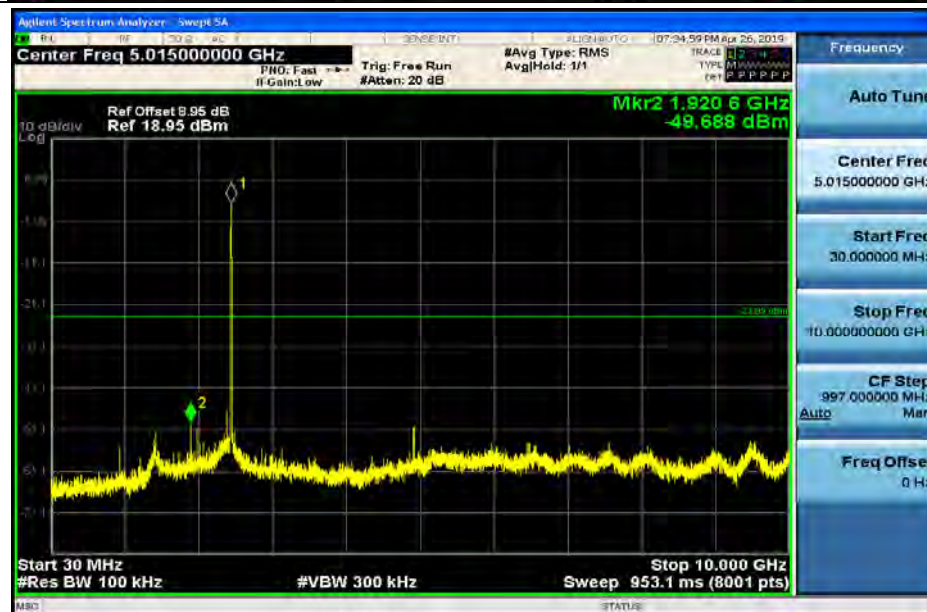
RF Conducted Spurious Emissions_11B_2412_Ant1



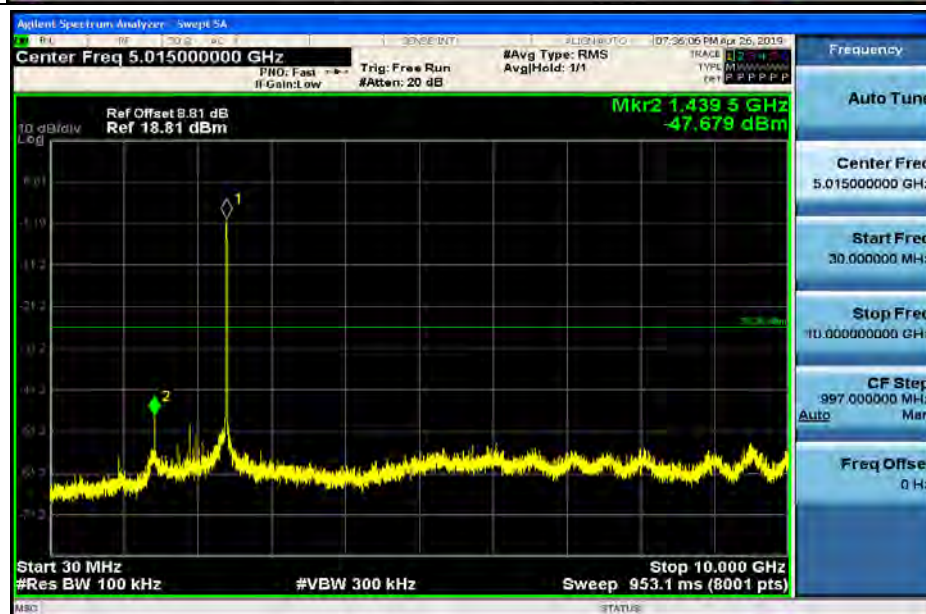
RF Conducted Spurious Emissions_11B_2437_Ant1



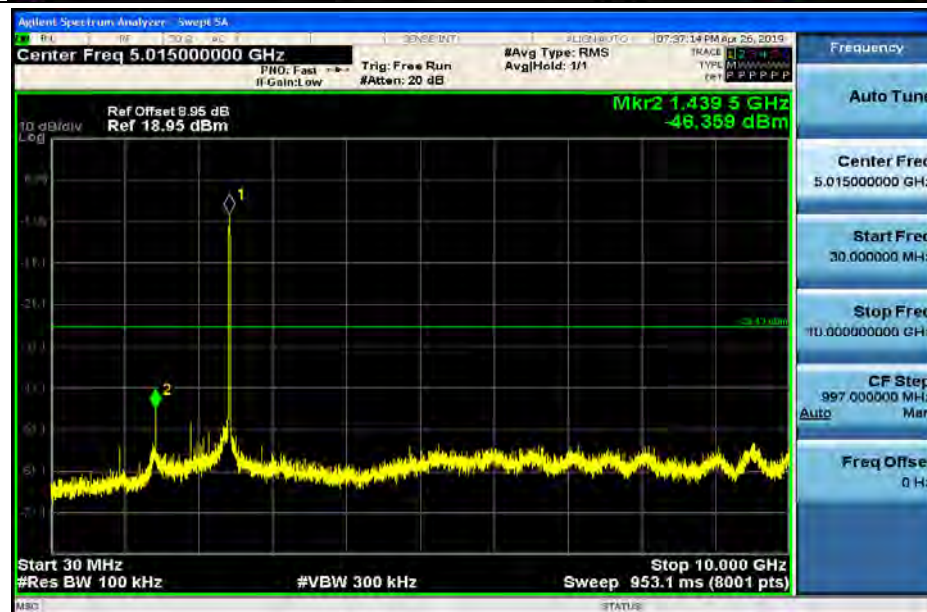
RF Conducted Spurious Emissions_11B_2462_Ant1



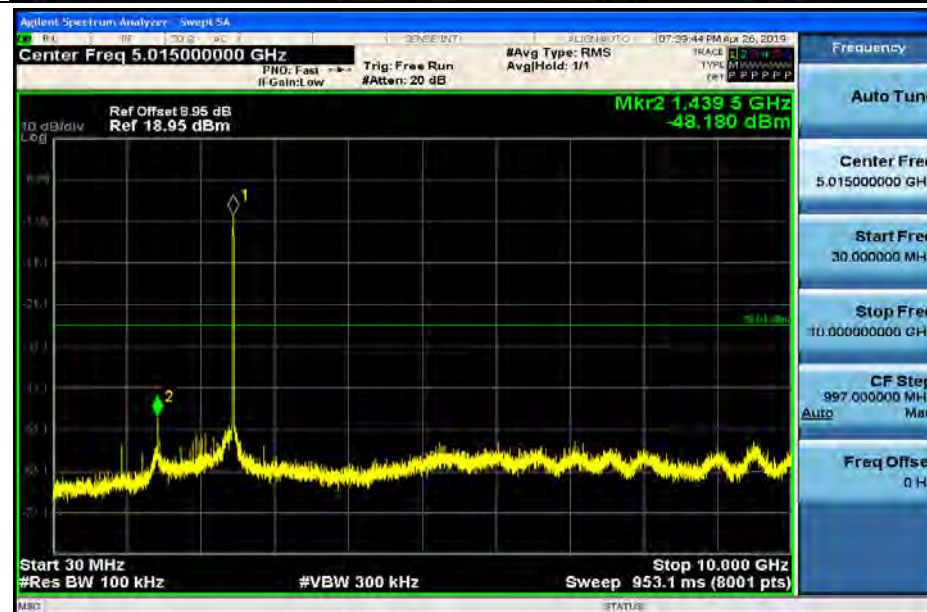
RF Conducted Spurious Emissions_11G_2412_Ant1



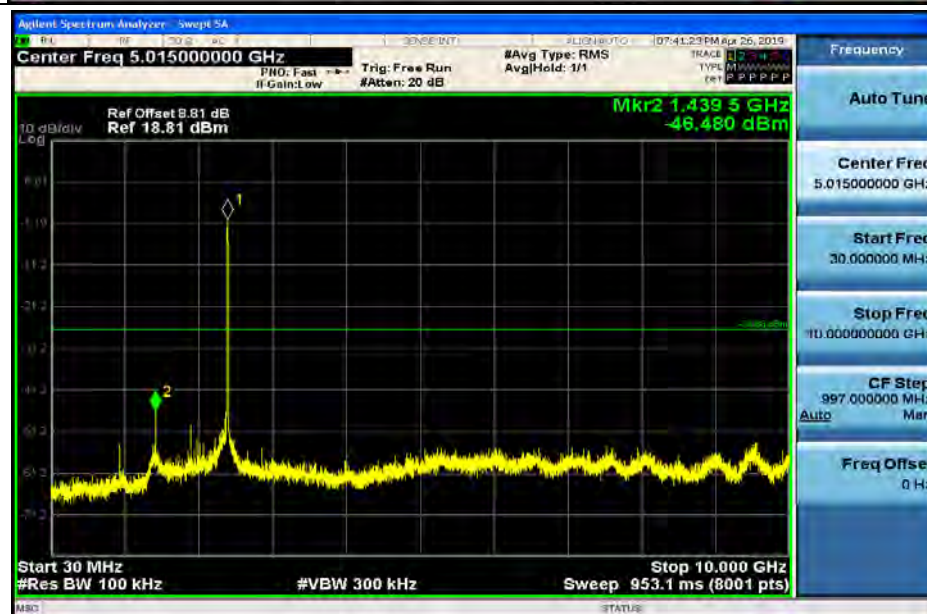
RF Conducted Spurious Emissions_11G_2437_Ant1



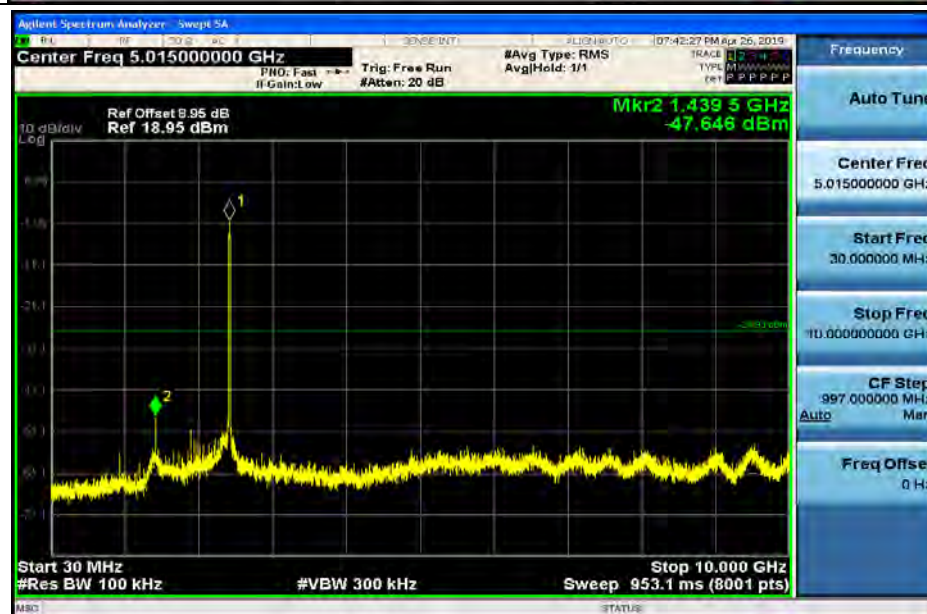
RF Conducted Spurious Emissions_11G_2462_Ant1



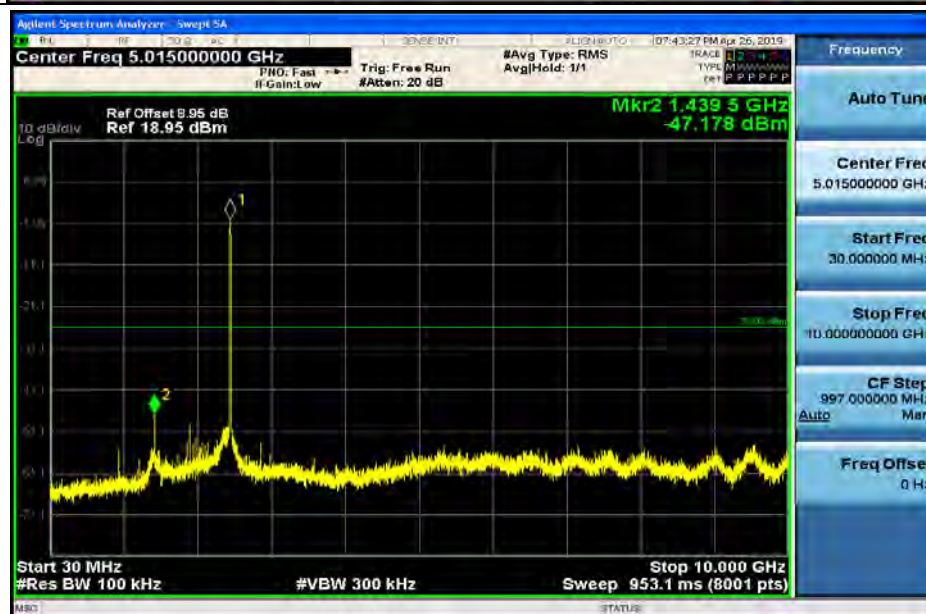
RF Conducted Spurious Emissions_11N20SISO_2412_Ant1



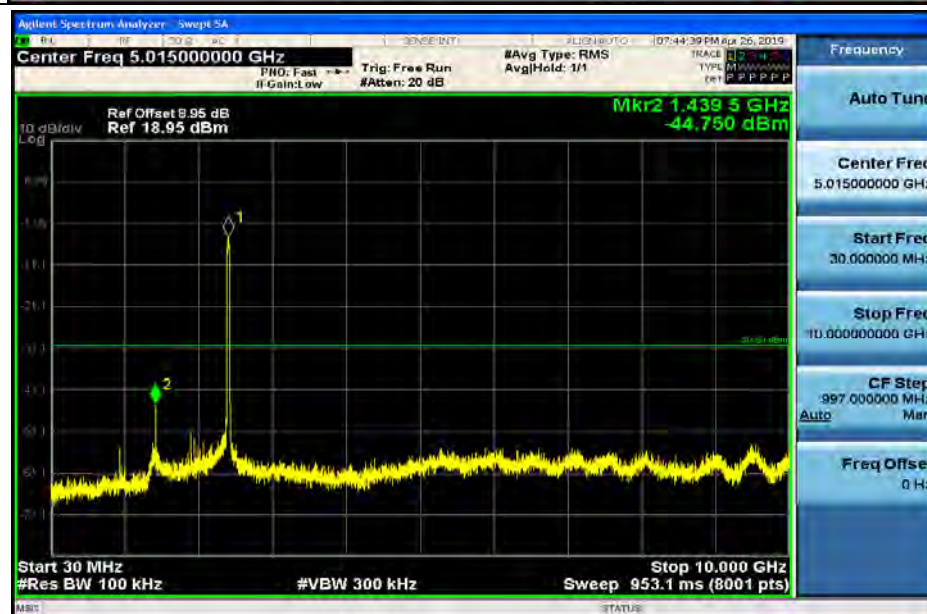
RF Conducted Spurious Emissions_11N20SISO_2437_Ant1



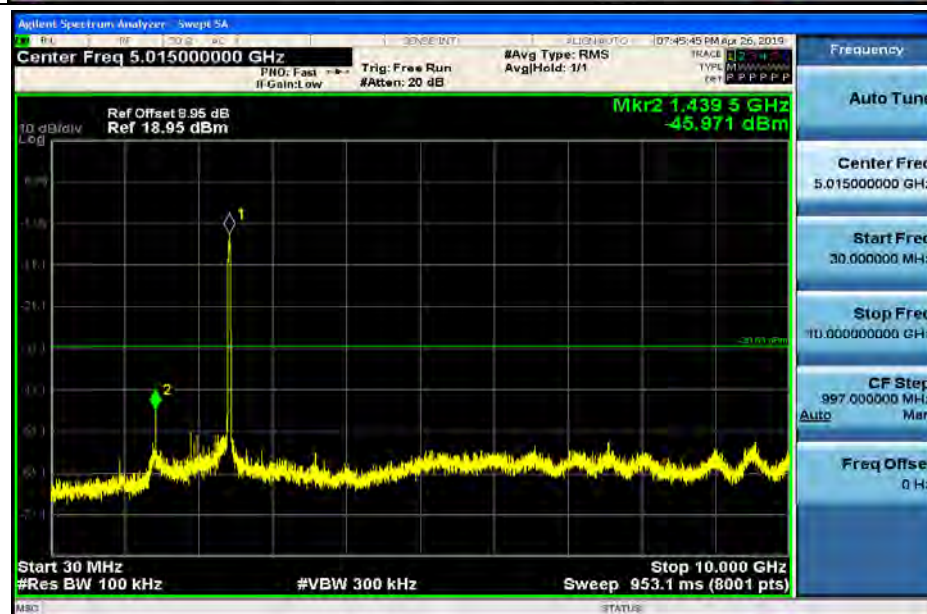
RF Conducted Spurious Emissions_11N20SISO_2462_Ant1



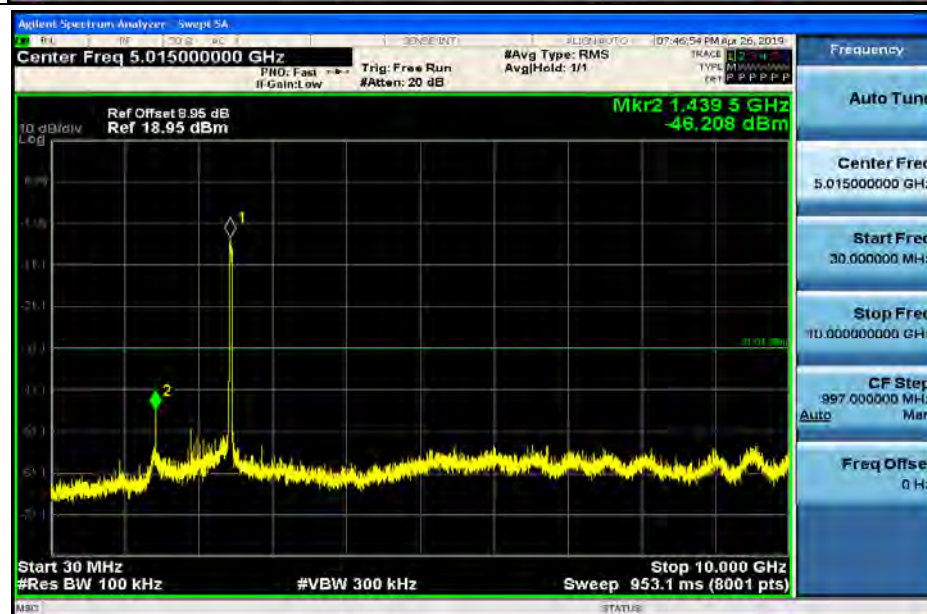
RF Conducted Spurious Emissions_11N40SISO_2422_Ant1



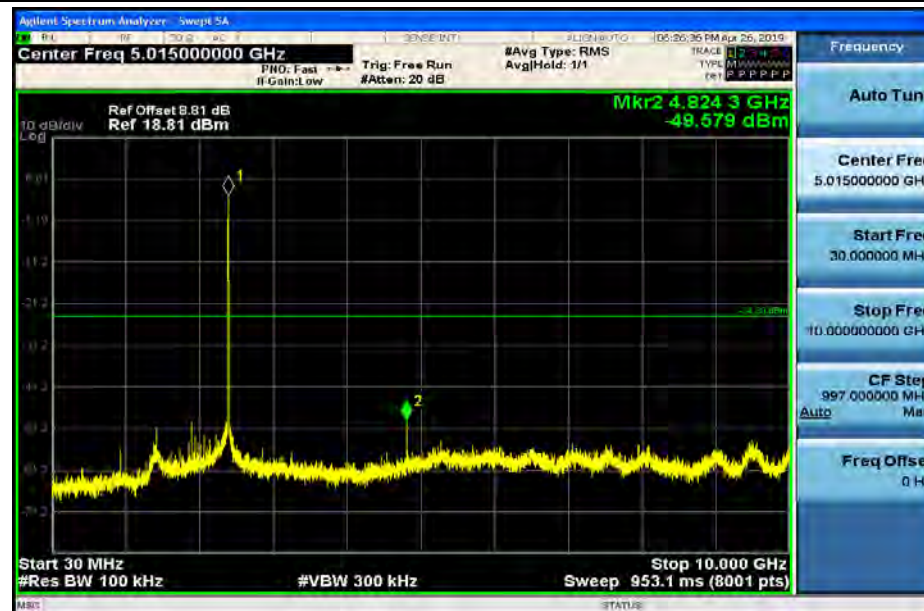
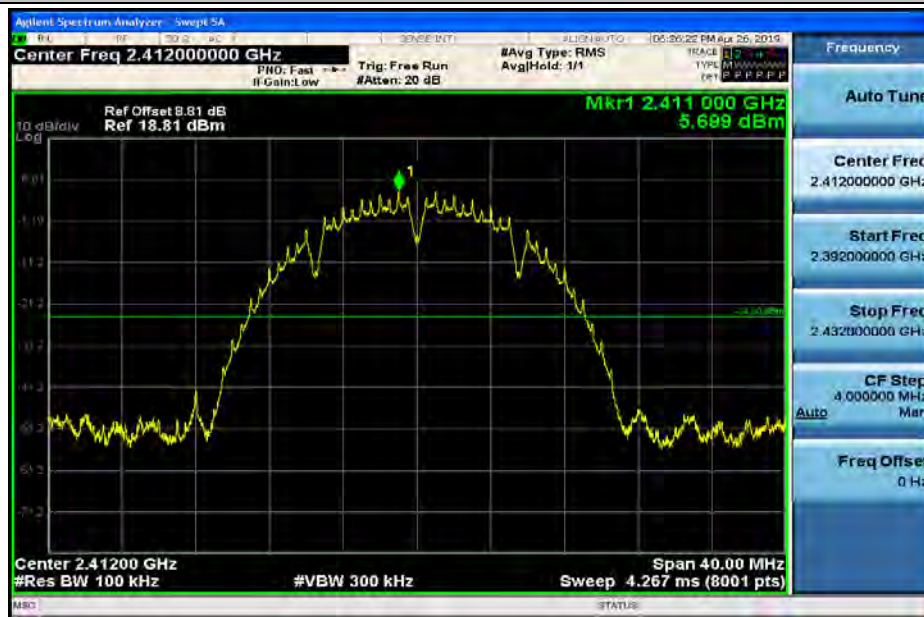
RF Conducted Spurious Emissions_11N40SISO_2437_Ant1



RF Conducted Spurious Emissions_11N40SISO_2452_Ant1

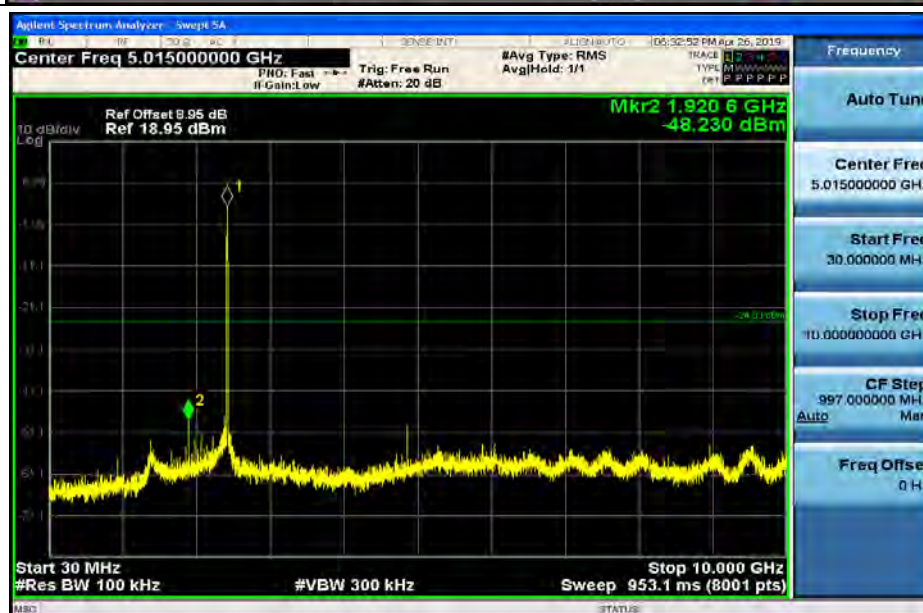


RF Conducted Spurious Emissions_11B_2412_Ant2



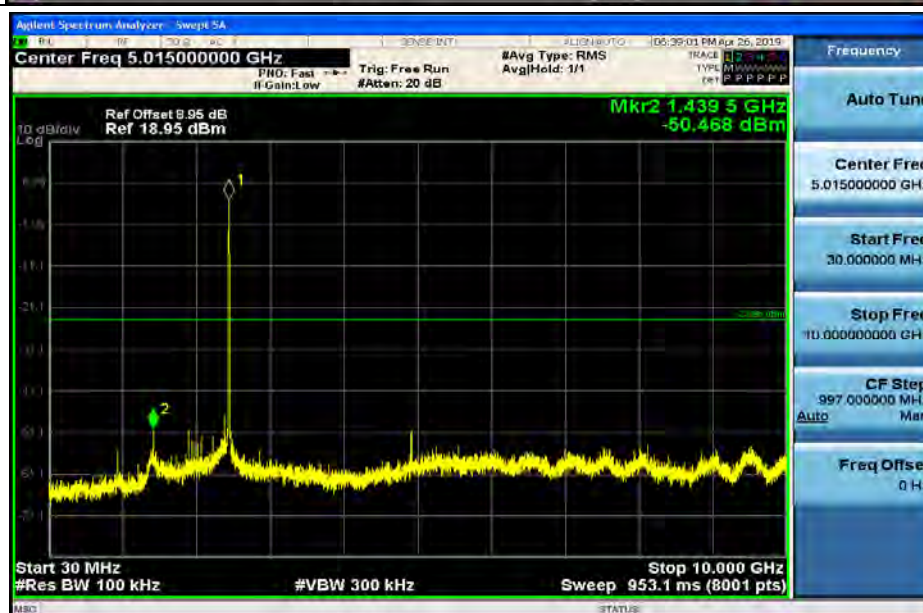


RF Conducted Spurious Emissions_11B_2437_Ant2



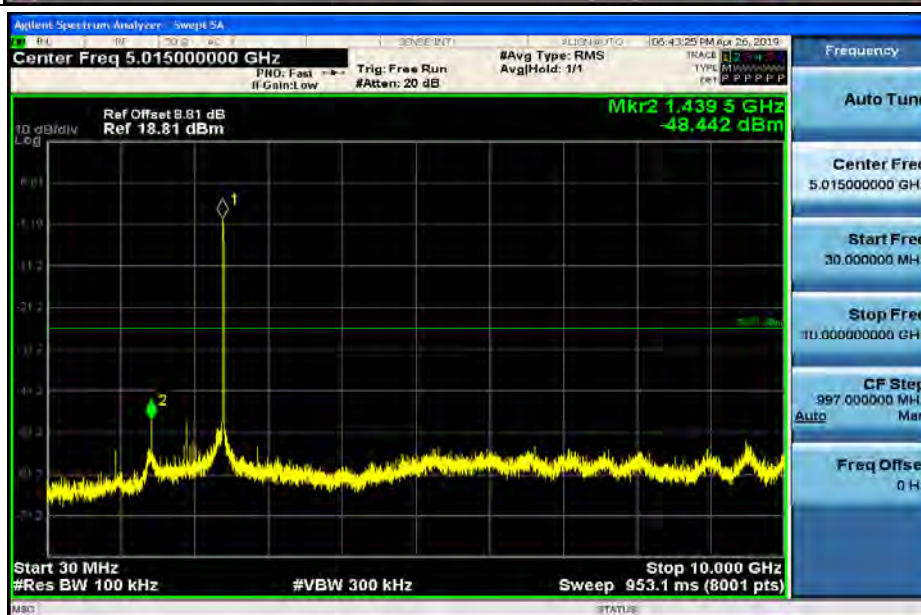


RF Conducted Spurious Emissions_11B_2462_Ant2



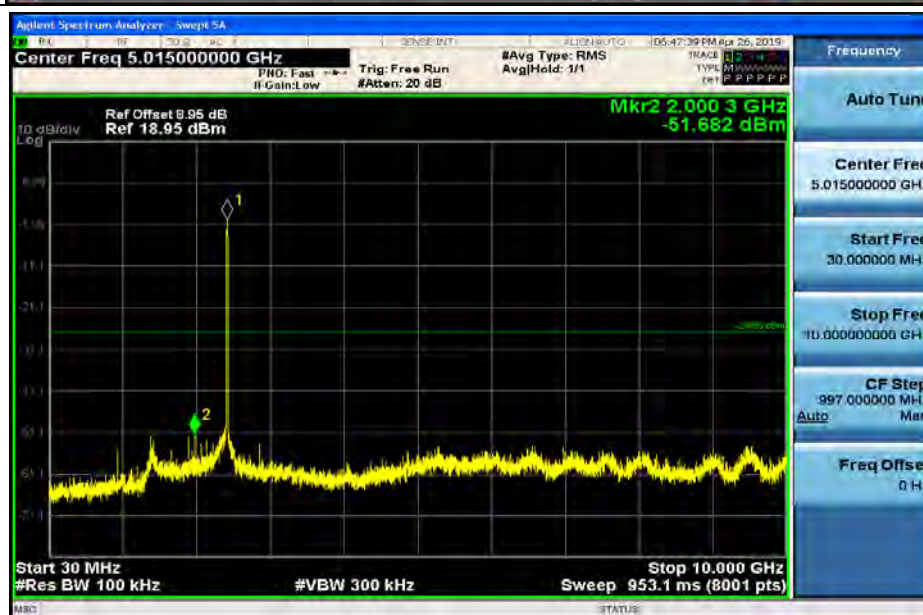


RF Conducted Spurious Emissions_11G_2412_Ant2



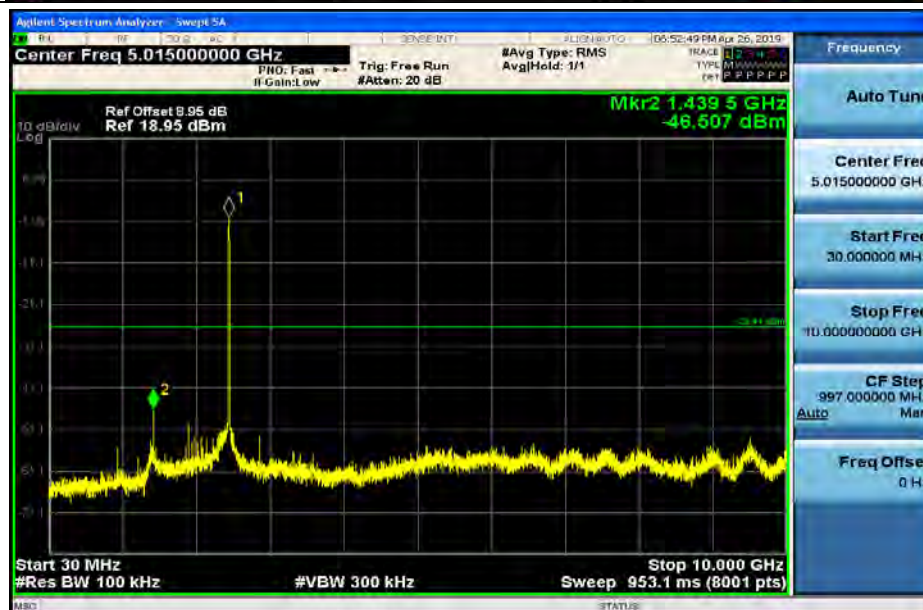


RF Conducted Spurious Emissions_11G_2437_Ant2



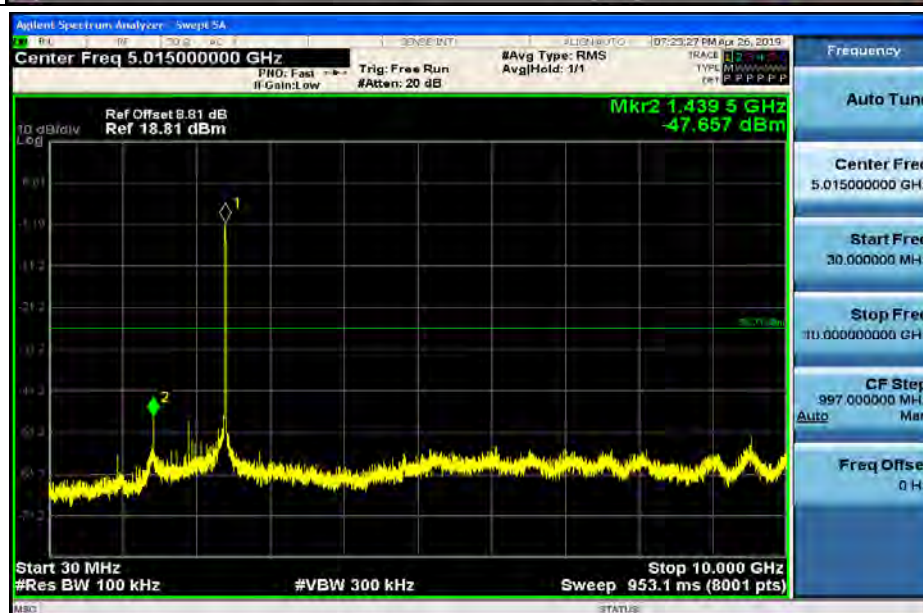


RF Conducted Spurious Emissions_11G_2462_Ant2



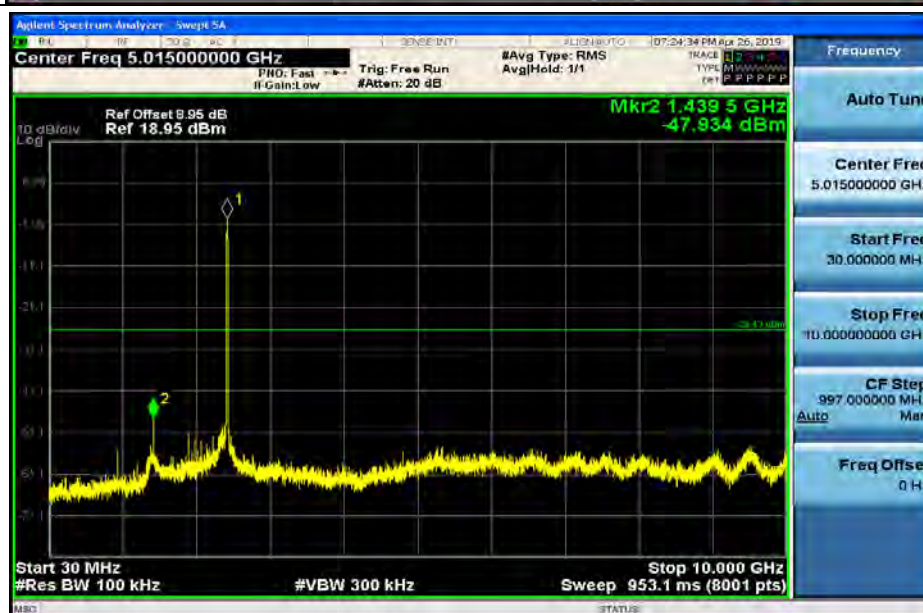


RF Conducted Spurious Emissions_11N20SISO_2412_Ant2



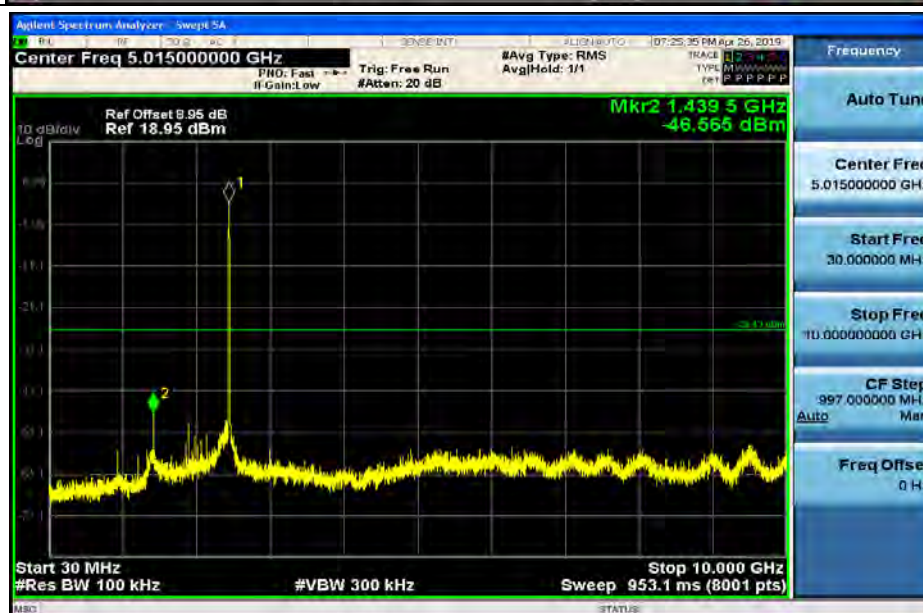


RF Conducted Spurious Emissions_11N20SISO_2437_Ant2



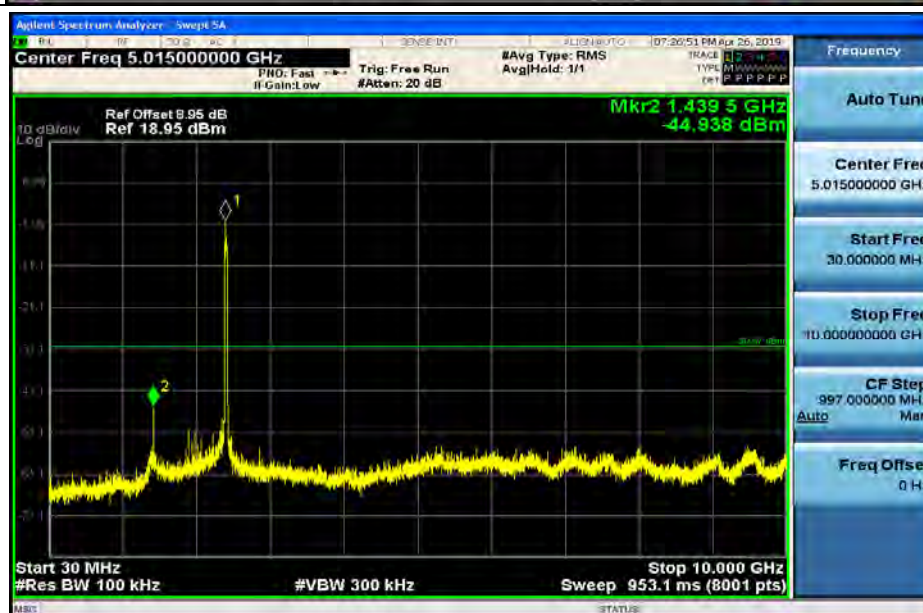


RF Conducted Spurious Emissions_11N20SISO_2462_Ant2



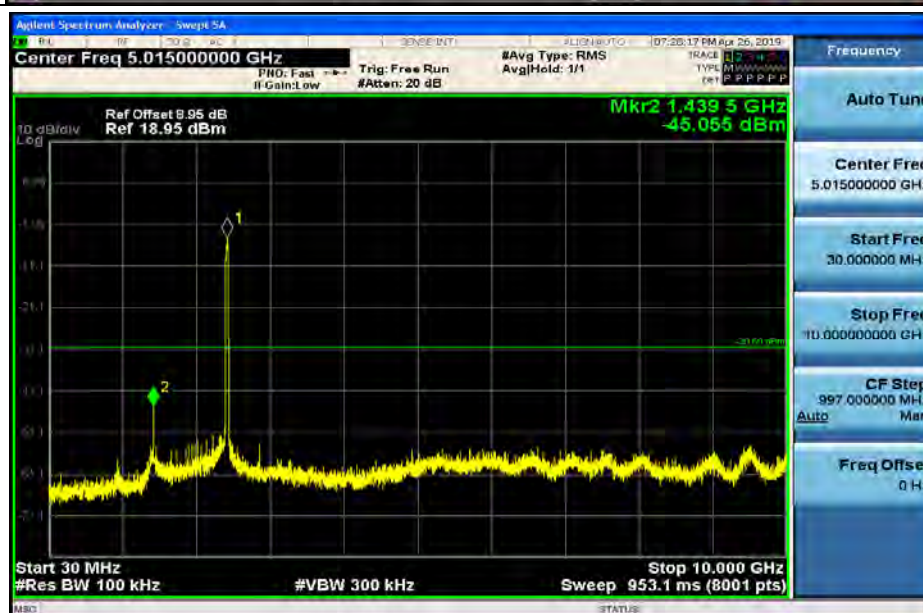


RF Conducted Spurious Emissions_11N40SISO_2422_Ant2



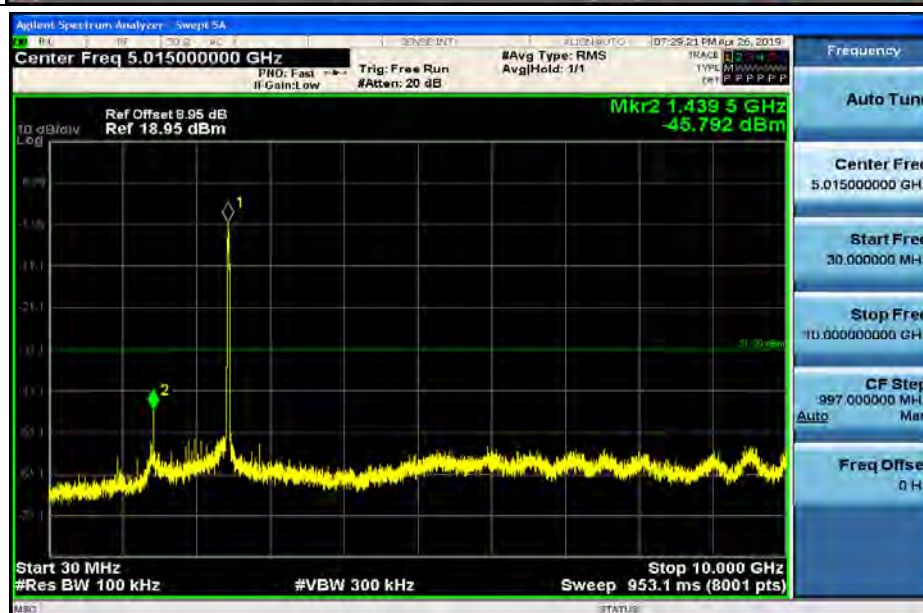


RF Conducted Spurious Emissions_11N40SISO_2437_Ant2





RF Conducted Spurious Emissions_11N40SISO_2452_Ant2

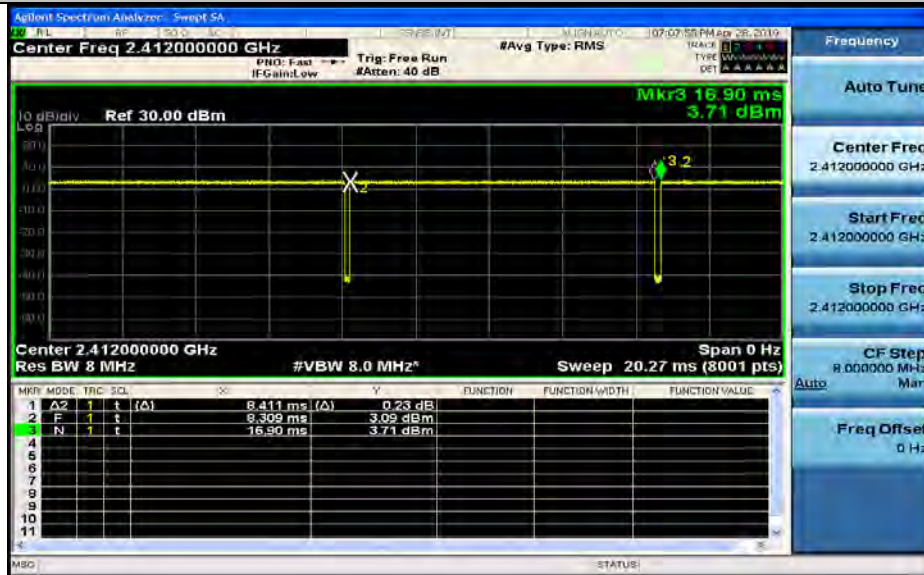




**7.Duty Cycle**

Test Mode	Test Channel	Duty Cycle[%]		10log(1/x) Factor[dB]	
		Ant1	Ant2	Ant1	Ant2
11B	2412	97.94	98.05	0.09	0.09
11B	2437	98.75	98.34	0.05	0.07
11B	2462	99.40	98.14	0.03	0.08
11G	2412	89.41	90.44	0.49	0.44
11G	2437	92.58	95.98	0.33	0.18
11G	2462	96.65	93.05	0.15	0.31
11N20SISO	2412	93.28	95.90	0.30	0.18
11N20SISO	2437	88.77	87.56	0.52	0.58
11N20SISO	2462	88.16	93.28	0.55	0.30
11N40SISO	2422	87.07	75.91	0.60	1.20
11N40SISO	2437	83.58	88.46	0.78	0.53
11N40SISO	2452	78.42	87.12	1.06	0.60

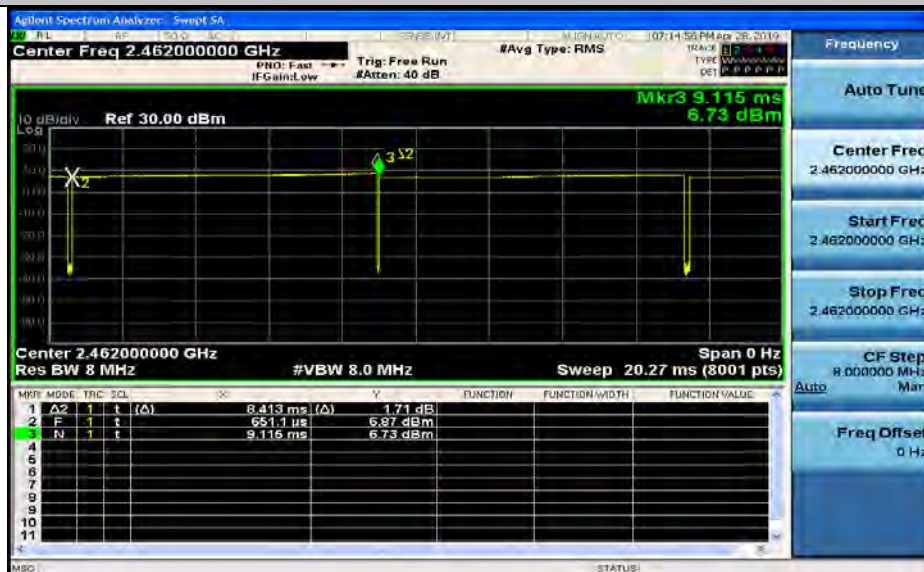
Duty Cycle_11B_2412_Ant1



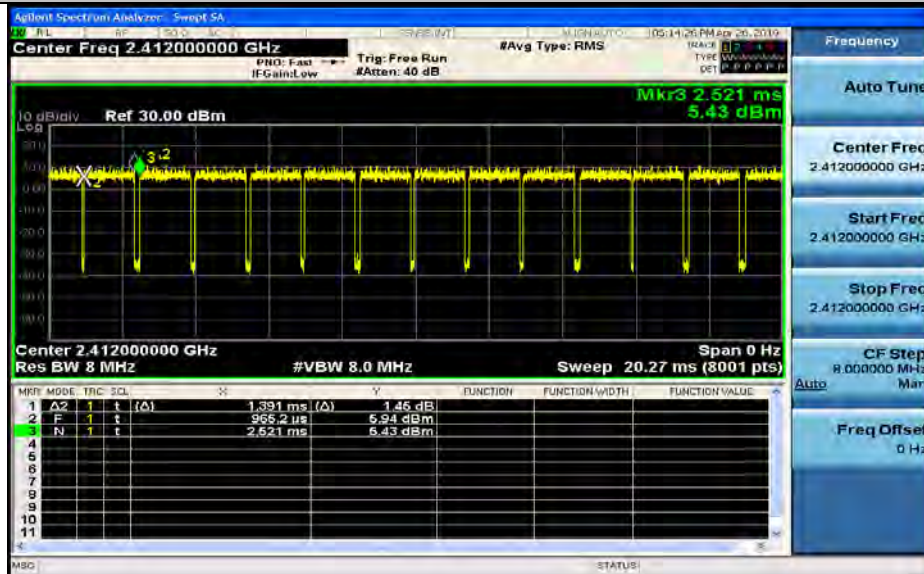
Duty Cycle_11B_2437_Ant1



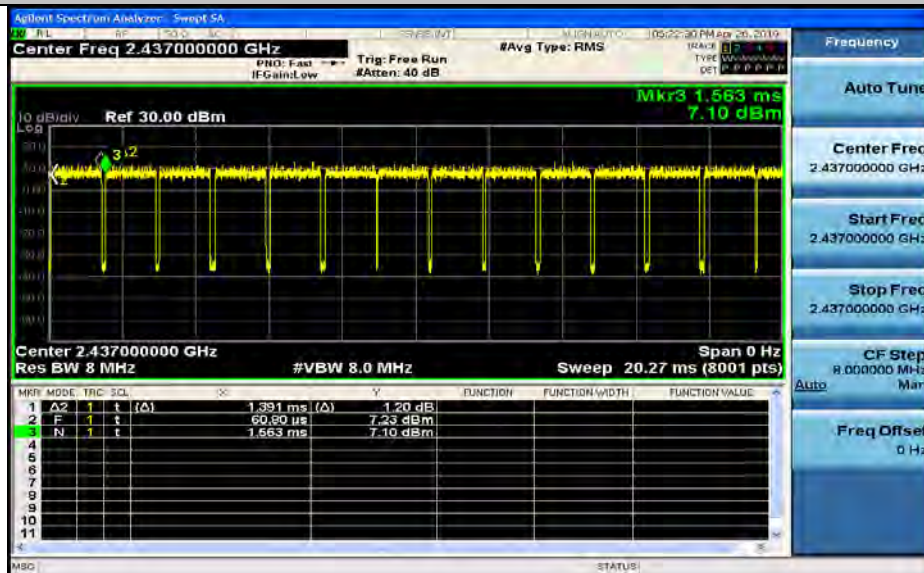
Duty Cycle_11B_2462_Ant1



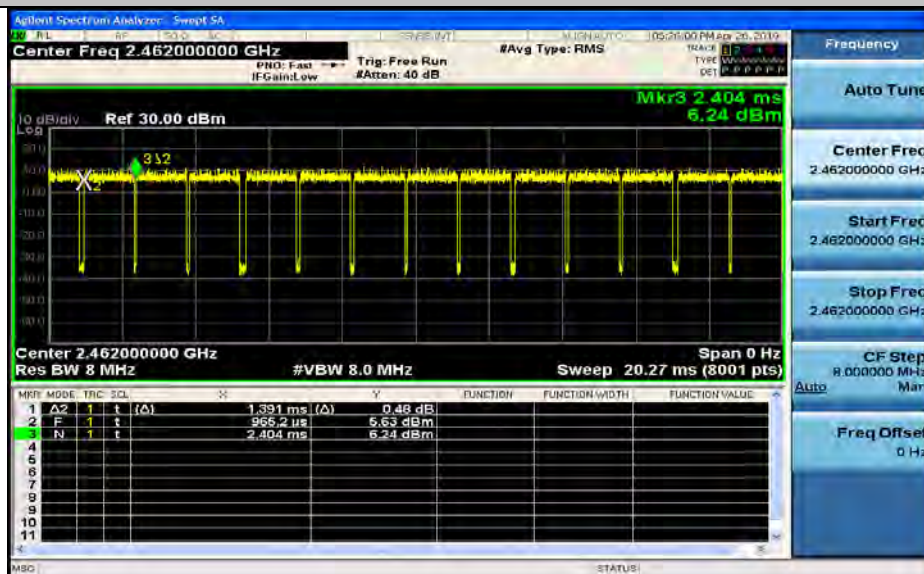
Duty Cycle_11G_2412_Ant1



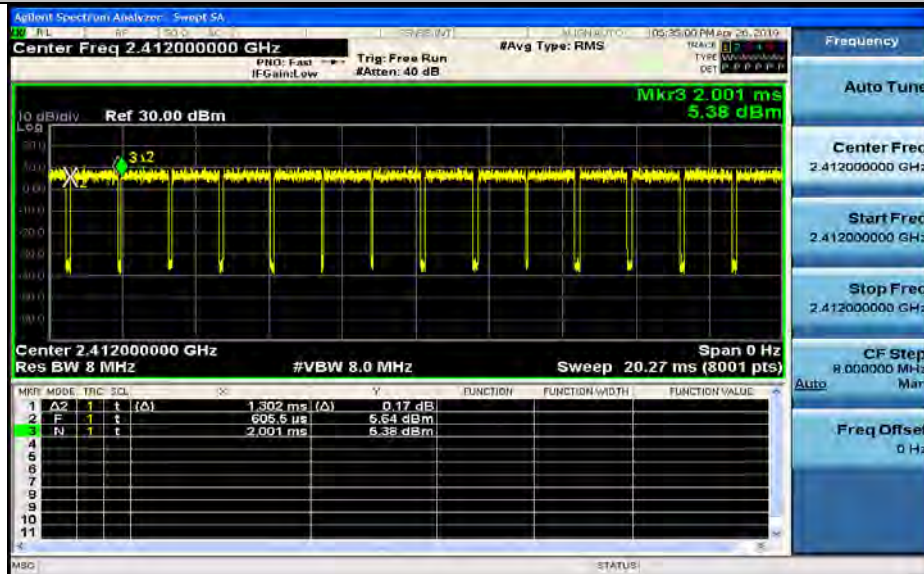
Duty Cycle_11G_2437_Ant1



Duty Cycle_11G_2462_Ant1



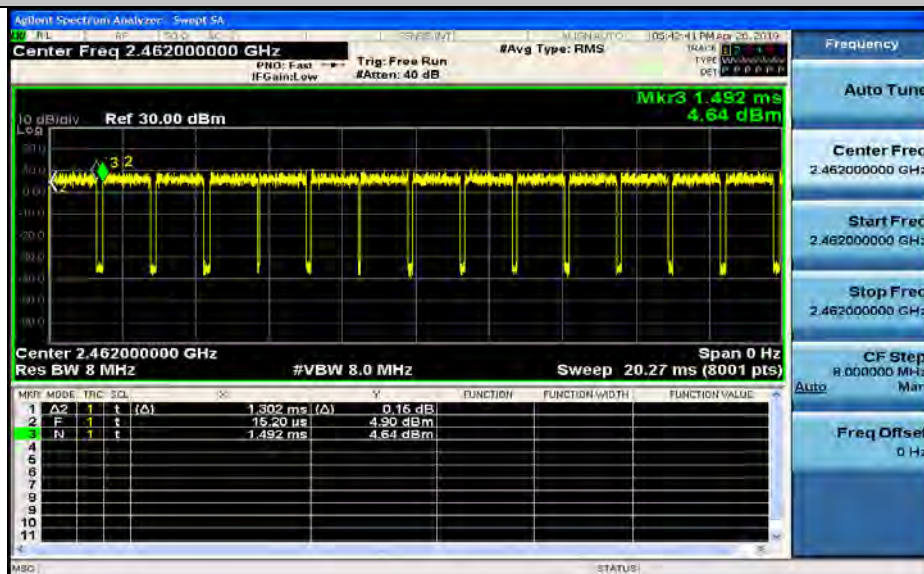
Duty Cycle_11N20SISO_2412_Ant1



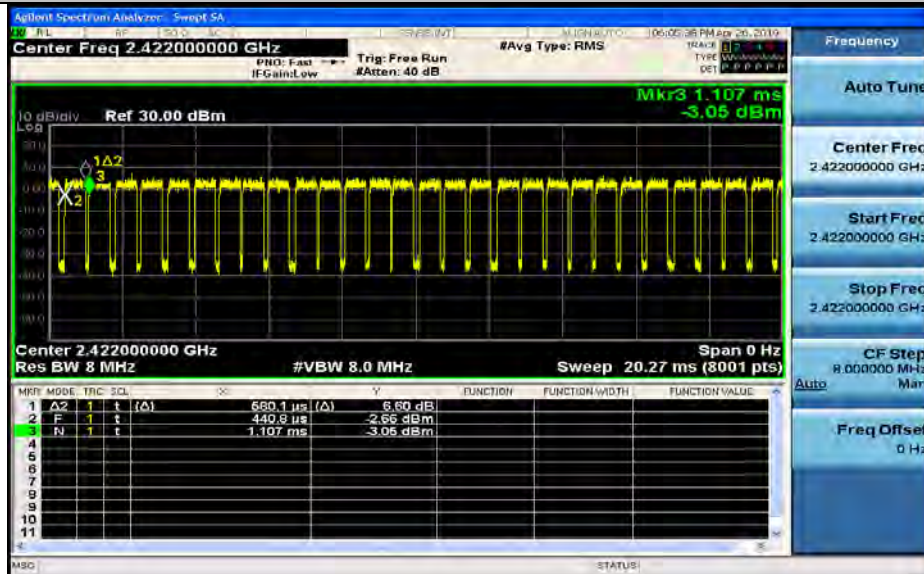
Duty Cycle_11N20SISO_2437_Ant1



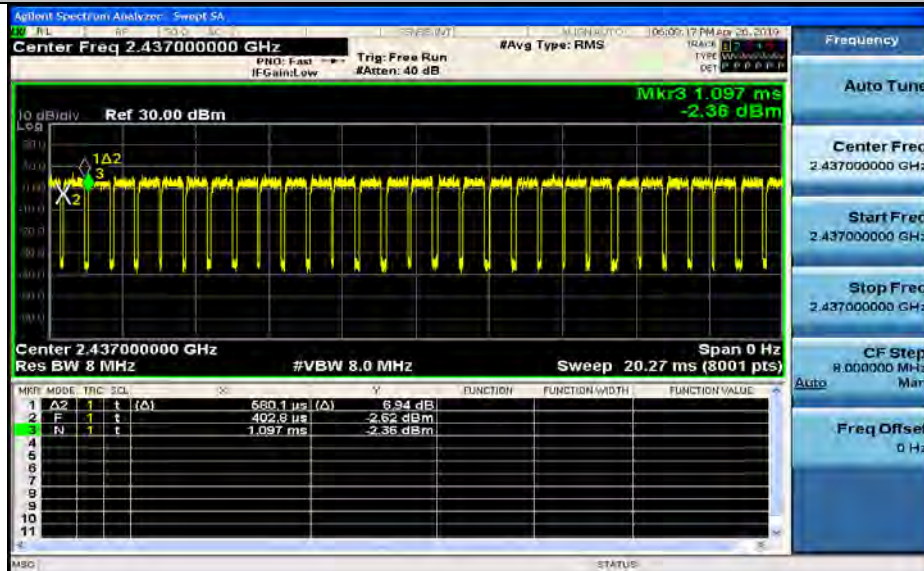
Duty Cycle_11N20SISO_2462_Ant1



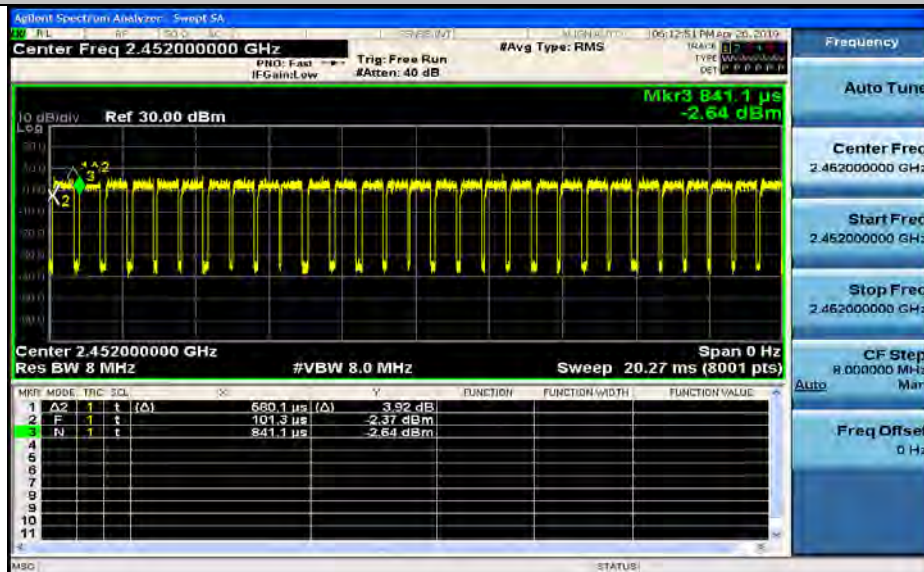
Duty Cycle_11N40SISO_2422_Ant1



Duty Cycle_11N40SISO_2437_Ant1



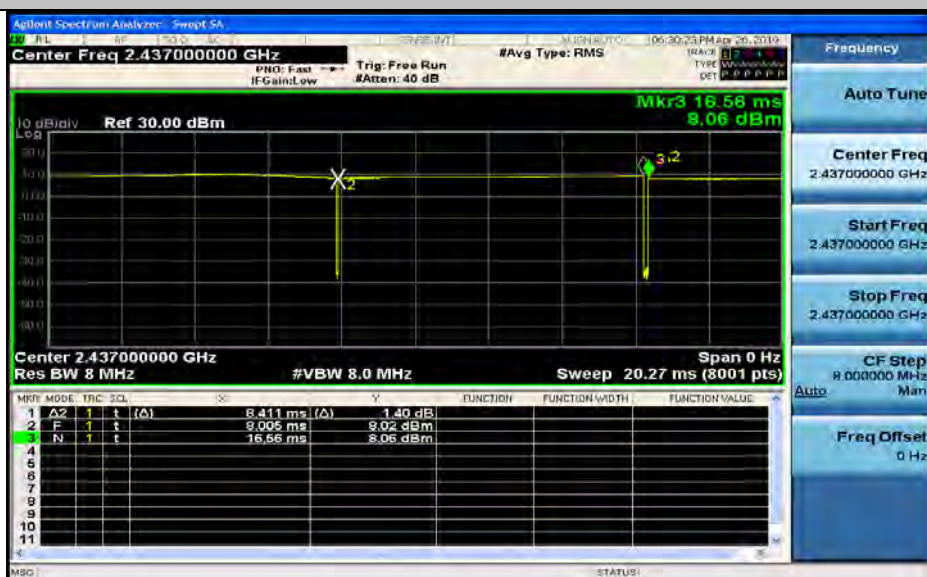
Duty Cycle_11N40SISO_2452_Ant1



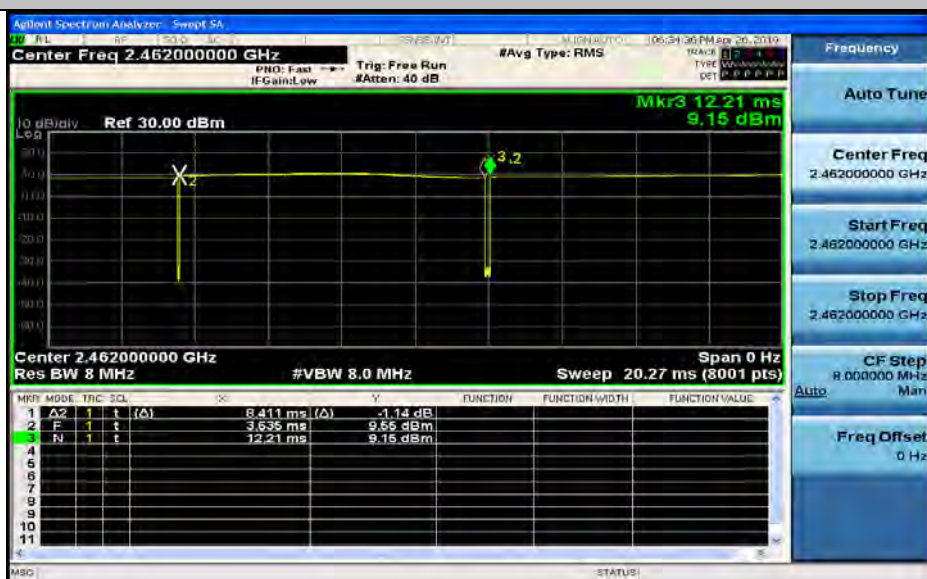
Duty Cycle_11B_2412_Ant2



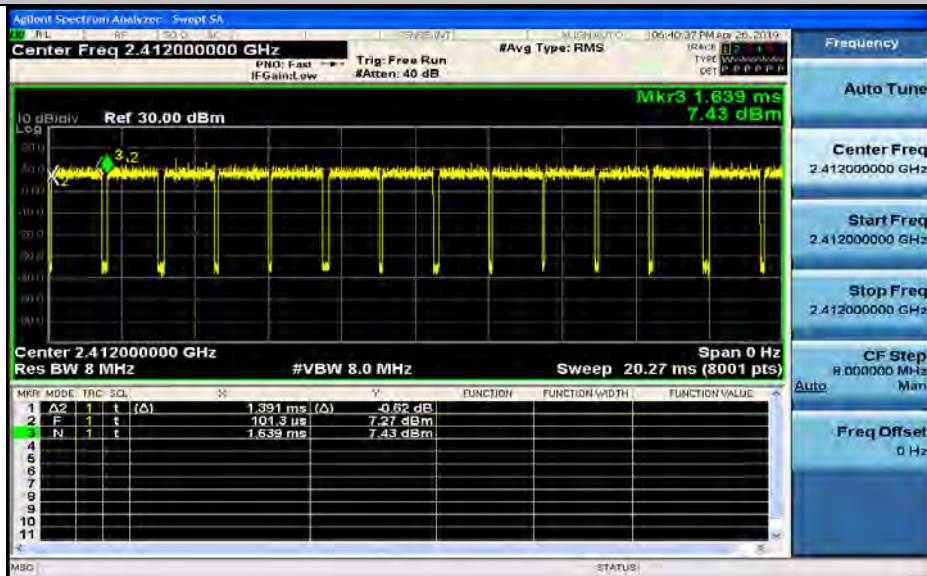
Duty Cycle_11B_2437_Ant2



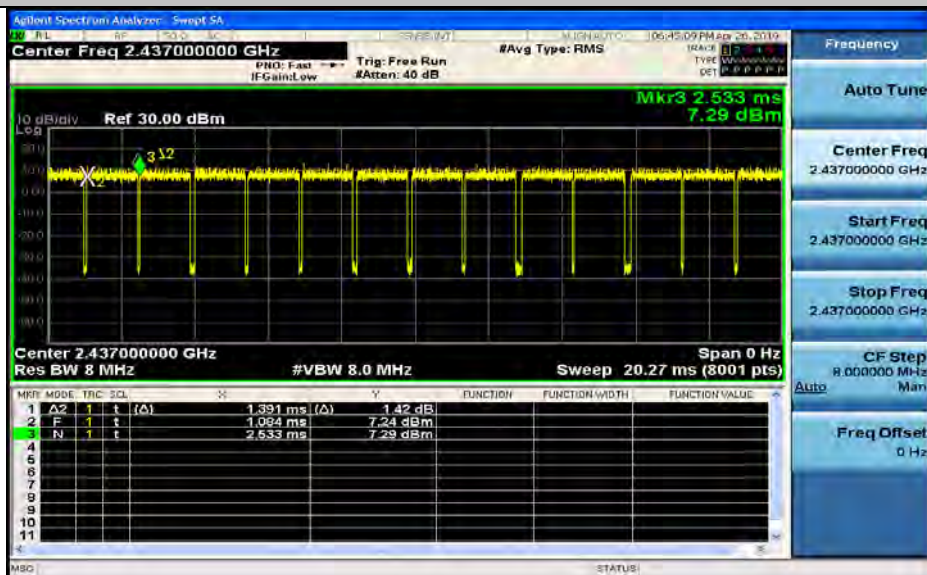
Duty Cycle_11B_2462_Ant2



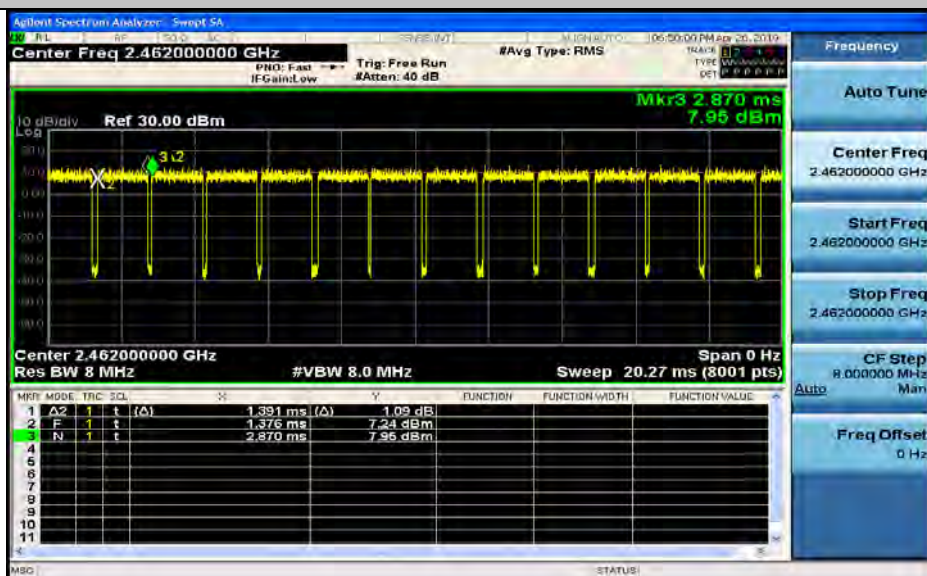
Duty Cycle_11G_2412_Ant2



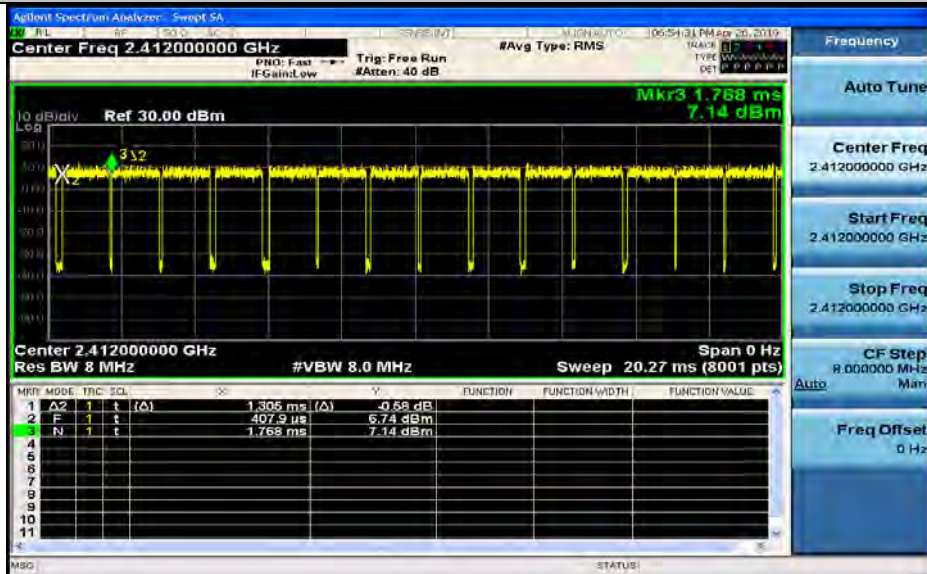
Duty Cycle_11G_2437_Ant2



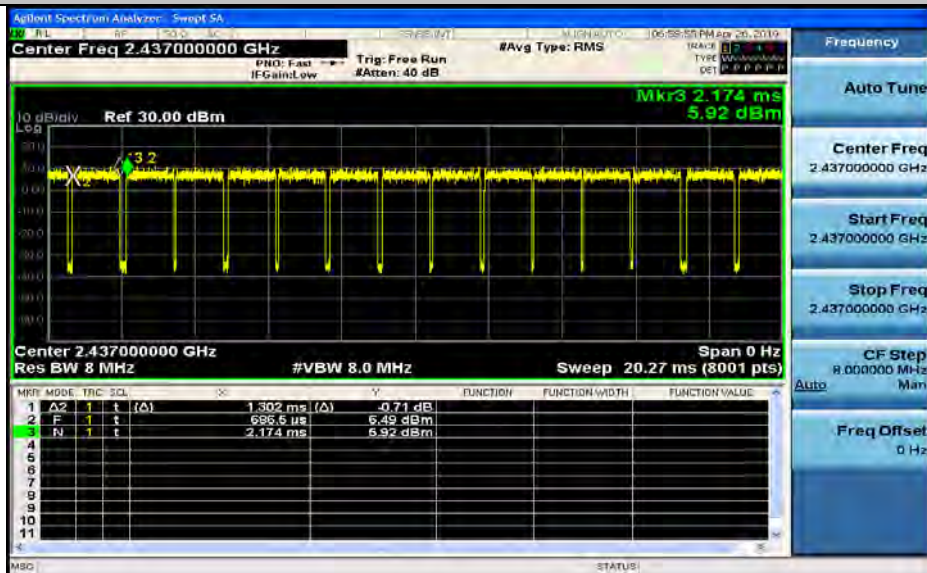
Duty Cycle_11G_2462_Ant2



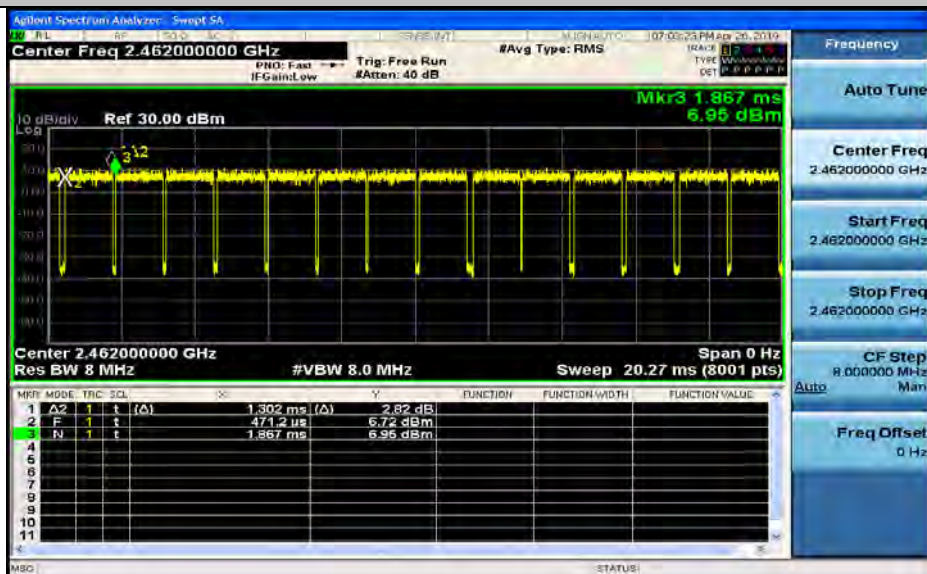
Duty Cycle_11N20SISO_2412_Ant2



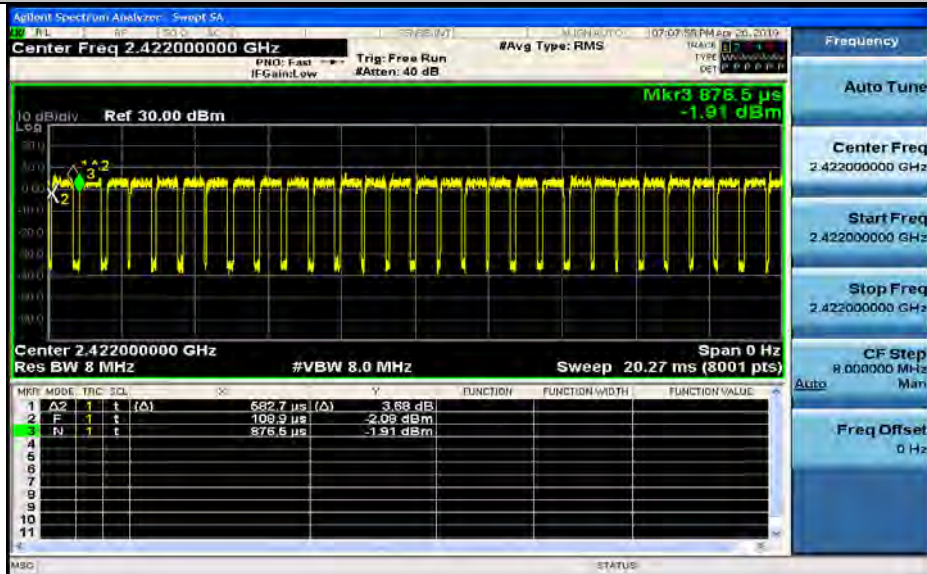
Duty Cycle_11N20SISO_2437_Ant2



Duty Cycle_11N20SISO_2462_Ant2



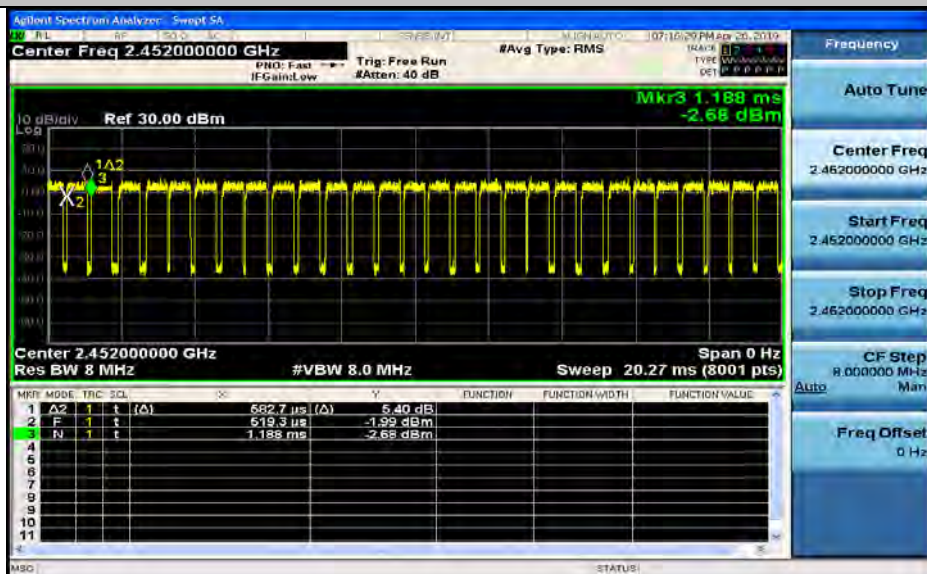
Duty Cycle_11N40SISO_2422_Ant2



Duty Cycle_11N40SISO_2437_Ant2



Duty Cycle_11N40SISO_2452_Ant2





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